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DETROIT MEDICAL JOURNAL

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The Practitioner's Monthly

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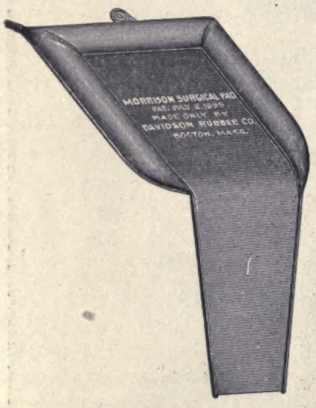

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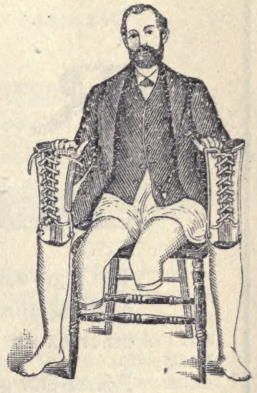

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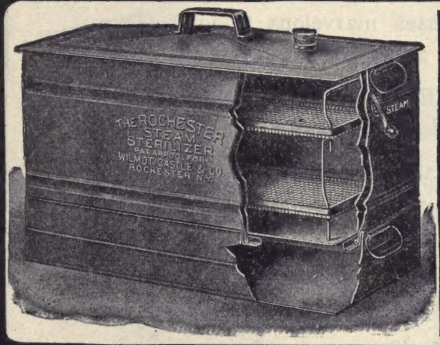

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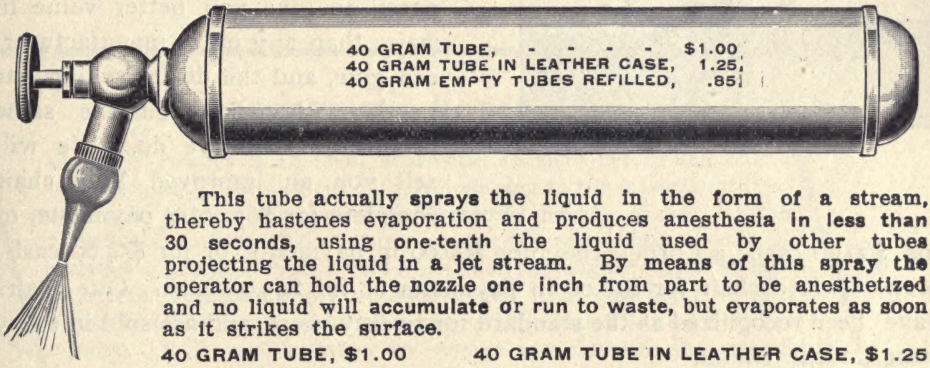

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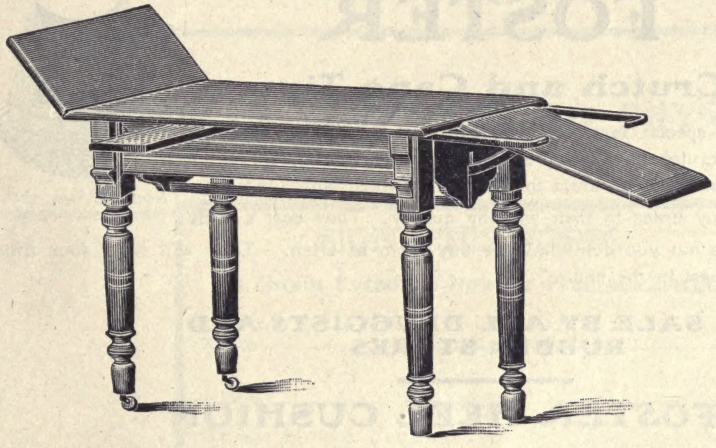

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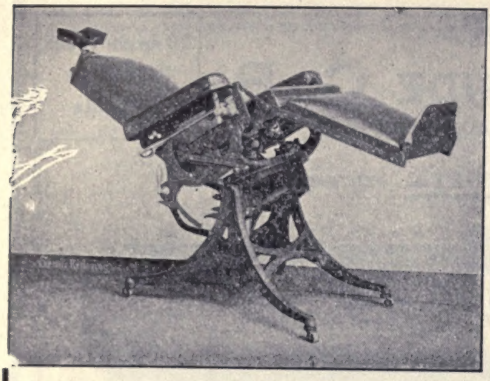

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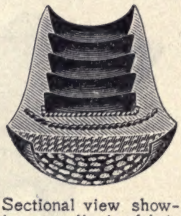

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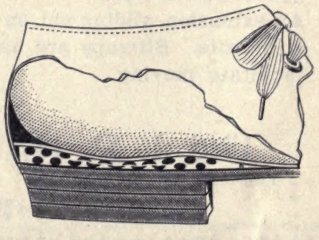

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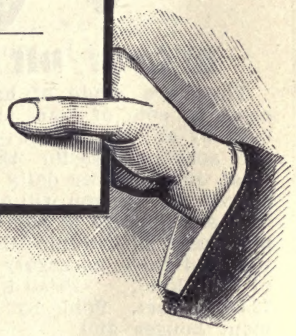

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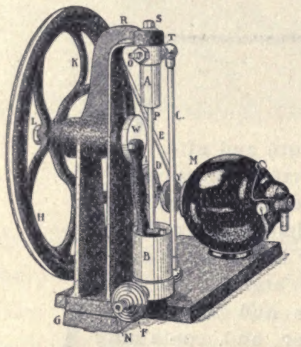

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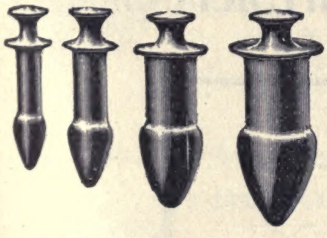

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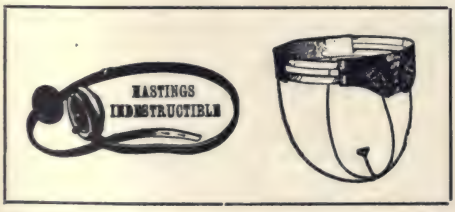

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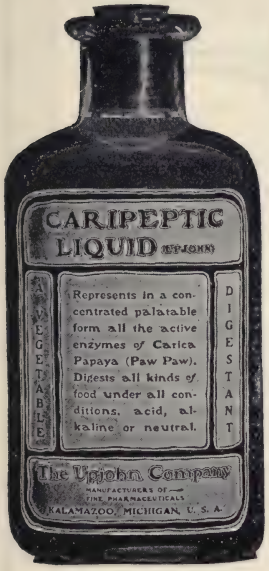
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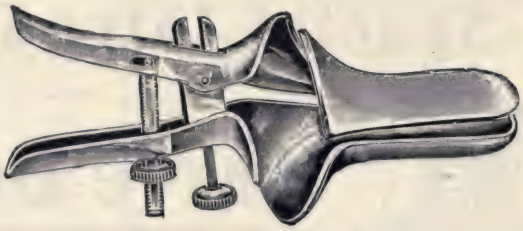

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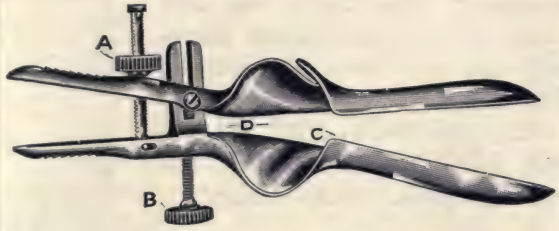

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RECIPIENTS OF THE NOBEL PRIZE IN PHYSIOLOGY AND MEDICINE.*

(Continued from August Issue)

MAJOR RONALD ROSS.

By FREDRICK W. MANN, M. D.
Detroit.

The discovery of Dr. Ronald Ross in 1898, and for which he received the Nobel prize in 1902, that the plasmodium of malaria has the mosquito for its extracorporeal host, is one which is now so thoroughly incorporated into medical practice, that little remains to be said about it. However, as my topic is to recall the main features of this brilliant achievement, let me remind you that Laveran, the first discoverer of the malarial hematozoon, long ago suggested that mosquitoes might be the means of disseminating malarial disease. Patrick Manson, however, was the first to advance tentatively the hypothesis "that the plasmodium is a normal parasite of the mosquito or some other suctorial insect passing from mosquito to larva and from larva to mosquito in never ending series." Manson based his prediction on his former discoveries connected with the blood parasite filaria sanguinis. Manson, too, had made endless studies of the flagellum which is sometimes observed to be part of the malarial parasite, and he maintained that this appendix would be found to be connected in some way with the life of the parasite outside the blood corpuscle of man. Bignami, an Italian observer, had previously to Manson suggested that the flagellated body had no existence during the intra-corpuscular life of the organism. He showed that if blood be taken under vaseline, that is under conditions which prevented atmospheric changes, the flagellated body would never be seen. Bastianelli, Bignami, Grassi and the Italian malariagraphers had maintained that the flagellated body was a degenerative feature in the parasite's life. Manson maintained the opposite proposition that the flagellated body was a sign of vitality, an indication that the organism was about to assume a new phase of existence, and that the flagellum itself represented the reaction of the organism to a medium of increasing viscidity.

Admiration must be accorded the subtle scientific philosophy whereby Manson scored over the Italian observers. The flagellum, he reasoned was not a degenerative feature in the plasmodium any more than in the spermatozoon or the tadpole. It was a case of the tail assuming its primitive function, that of an organ of locomotion. It was this well grounded hypothesis of Manson—but hypothesis nevertheless—that Ronald Ross confirmed in a series of investigations which were as pains-

taking as they were brilliant. Ross first of all found that the mosquito in imbibing human blood ingested the parasite, and he observed the formation of the flagellated body in the stomach of the mosquito. Thus he confirmed Manson's notion of the flagellum being connected with the extra-corporeal life of the parasite. It had been known for some time that birds suffered from plasmodial disease and Ross determined to work out the problem on birds. The evolution of one of these avian parasites, the halteredium, had been worked out by McCallum, of Johns Hopkins, and another, Proteosoma labbe, had been studied by the Italian observers. Ross chose to make his experiments with proteosoma.

Ross allowed birds afflicted with proteosoma to be attacked by mosquitoes, and again found the malarial organism to enter the mosquito's stomach. An hour later, examining this mosquito, he found certain oval pigmented bodies in the muscular lining of the stomach, which he inferred were a developed stage of the proteosoma, for in hundreds of test experiments these pigmented bodies only occurred in mosquitoes fed on proteosomatous birds. That these bodies were evolutionary forms of proteosoma was almost confirmed by what was known of the evolution of halteridium, the other malarial parasite of birds. In this organism, after the flagellum had broken away, it entered the pigmented halteridiæ, and these being transformed into traveling vermicules possessed the power of entering the corpuscles. In other words a sexual process resembling the embedding of the spermatozoon in the ovum took place. Ross inferred the same thing to occur in proteosoma and that the traveling vermicules entered the mosquito's stomach and there became the pigmented bodies. The further course of the evolution of the proteosoma in the stomach is highly interesting. It grows in size and projects rounded bodies beyond the stomach walls. These Ross termed proteosoma coccidia. These coccidia undergo changes of appearance. Pigment comes and then disappears, but the coccidia finally burst and from them emerge the germinal vermicules. These vermicules Ross found practically infested all the tissue of the mosquito and what was of highest importance these forms were discovered in the venemosalivary glands of the mosquito. The climax of these brilliant investigations was now within easy reach. Ross allowed mosquitoes to feed on birds afflicted with proteosoma, and after a few days he fed them on birds whose blood was void of parasitic infection. The blood of the latter in a few days was filled with proteosoma, thus establishing the fact that the mosquito acted as an extra-corporeal and intermediate host of the malarial parasite of birds.

Two or three months later the scene in this scientific drama changes from India where Ross had made his mosquito dissections, to Italy once more. In a gauze caged room in the Ospitale di San Spirit, under the direction of Dr. Bignami, an attempt is being made to transmit by mosquito innoculation the parasite to man. The patient is confined in the cage and mosquitoes are brought to feed on him. Nothing results. A week or two later another experiment is made and nothing occurs. A third experiment is made on a man named Sola, he is thoroughly bitten

ALFRED BERNARD NOBEL

I. V. PAWLOW

NEILS R. FINSEN

by mosquitoes, he developes a little malaise and headache but that is all. These failures led to the next important step in this investigation, a more complete study of the mosquito of which there are many varieties. Ross, in India, had come to the conclusion that the common mosquito was a harmless insect, for his experiments were only successful with the large grey mosquito. Grassi, an associate of Bignami, captured at Maccarese, a place about twenty miles from Rome, on the Civita Vecchia road, where a severe form of estivo-autumnal fever prevails, three species of mosquitoes. With these the fourth experiment was made. On the first of November, 1898, a patient bitten by these mosquitoes had a severe rigor, and on November 3rd his temperature reached 105 degrees. On the evening of this day the estivo-autumnal parasite was found in his blood. Thus did Ross's discovery receive complete and final corroboration.

67 Cass St.

NEILS R. FINSEN.

By H. ROCKWELL VARNEY, M. D.
Detroit.

To Professor Neils R. Finsen, the world at large is indebted for the scientific research and therapeutic application of the Light treatment which bears his name; and instead of applying his wonderful results toward financial gain, he gave to the medical profession the benefit of his discoveries.

He was born on the Island of Faroe, near Iceland, where his early life was spent. At the age of twenty, he went to Copenhagen and entered the university, taking a course in medicine, but as his health was undermined after he graduated, instead of engaging in active practice, he was obliged to accept a position as instructor in anatomy in the university.

The little leisure he had, was spent in scientific research. The effect of light had always a great fascination for him. This was probably due to the fact that he had lived in a country of wind and storm, which the sun favored at short and infrequent intervals. His interest in its effect is made manifest by these words. "On a cloudy day let the sun suddenly break through, and see the change. Insects that were drowsy, wake up and take wings; the snakes come out to sun themselves, the birds burst into song; we ourselves, feel as if a burden had been lifted." Being of an enquiring turn of mind, he asked nature why, and decided to study the ants, lizards, and earth-worms. Nor did his interest in the subject ever fail, and it was during his career as instructor at the university, that he found in the medical library, a pamphlet containing the report of Dr. Pictou, of New Orleans, of some soldiers who, while confined in dungeons, broke out with small-pox, and after recovery, it was discovered that they were free from scars. This was in accordance with some of Finsen's theories regarding the effect of light, and was a basis for further investigation. He decided that the soldiers were not pitted because of the exclusion of all light, and especially the blue or actinic rays, for he had already proven that it was these rays that disturbed earth-worms,

while they remained undisturbed in the red rays. His query was, "If the blue rays disturb the worm, why would they not irritate an inflamed skin?" He at once began the study of the effect of these chemical rays upon eruptive diseases of the skin, especially small-pox. In the latter part of the year 1893, he gave out his first reports of these investigations which, though based purely upon theoretical grounds, as he had never seen a case of small-pox up to this time, were that patients suffering with this disease will be free from scars, if all rays except the red rays are excluded from them.

During an epidemic of small-pox among the soldiers, his theories were tested by Dr. Stevendsen, assistant surgeon in the army, who, by means of red shades, excluded all other rays of light from his patients and the results of his experiment proved a triumph for Finsen who was then given a pension of $1,200 a year from the Danish government.

Dr. Stevendsen's report of the red light treatment was that "The period of suppuration, the most dangerous and painful stage of the small-pox, did not appear; there was no elevation of temperature and no edema. The patients entered the stage of convalescence immediately after the stage of vaccination, which seemed a little prolonged. The hideous scars were avoided." Later, control tests were made, and it was proven that patients exposed to very little daylight, suffered suppuration and scarring.

After the reports of these experiments had brought Finsen into such prominence, it was no longer necessary for him to continue teaching, and he was able to devote all of his time, though handicapped seriously by ill-health, to realizing his hopes of discovering the virtues of the chemical rays of light, and their application to disease.

That sunlight would kill bacteria was long before an established fact, and Finsen's efforts were concentrated upon proving that this action was due entirely to the blue, violet, and ultra-violet rays. Plate culture of bacillus prodigiosus were killed by the July sun in one hour and a half, whereas, by concentrating this same light through lenses, after excluding all useless rays, the same baccilli and others were killed in from two to three seconds.

His next step was to estimate the penetrating power of the rays. To test this, he experimented, not only upon himself, but upon his wife, until he was satisfied that there were decided limitations to this power of penetration. He next proved that concentrated electric light is a more powerful agent than sunlight, and that tissues are penetrated much more quickly and deeper if the blood is first pressed from them.

Owing to the limitations of this power of penetration, he directed his attention chiefly to diseases of the skin that were of germ origin, selecting first, that heretofore unresponsive, dread disease, Lupus. His first patient was a man who had been suffering for eight years, and who had been subjected to every known treatment. His apparatus was a very crude affair, the red rays being filtered out through blue water, but the results met his fullest expectations, and another decided triumph was scored, and recognized by the people, for in a month's time the Finsen

Light Institution was established in Copenhagen, and the Danish government has continued to support, enlarge and beautify this institution until at the present time, it is heard of throughout all lands.

So carefully and scientifically did Finsen conduct his experiments that no one thus far, has been able to improve upon his apparatus, yet it has been attempted by thousands.

Finsen cultivated a field already ploughed by General Pleasanton, in the medical profession which has been productive of results, which have benefitted the whole of the civilized world. The number of actual cures to date, exceeds those accomplished by any other form of treatment, and these will ever establish him among the highest ranks of the world's benefactors. When we consider that he was ever struggling against disease that had attacked all of his vital organs, that for years, every particle of food he ate was weighed, we should place him among the martyrs. That he expected and hoped to accomplish more, had not death cut short his brilliant career, is evident when we consider his theories regarding the penetrating power of light. His aim was to discover a means of penetrating the body through and through, so as to reach internal affections; and this he has bequeathed to other investigators as food for thought and experiment.

Finsen's is a case of history repeating itself in that any great good is accomplished only by struggles and conflicts of the individual or the masses. Poor he was, broken in health, yet ever striving to make discoveries, not for individual gain, but to benefit mankind. It was not until 1893 that he was free to devote his entire time to his investigations, and not until 1903, a year previous to his death, that he was made financially independent by being rewarded the Nobel prize in medicine.

420 Woodward Ave.

IVAN PETROVITCH PAWLOW. (PAVLOFF).

By HOMER E. SAFFORD, M. D.
Detroit.

The fourth award of the Nobel prize for the advancement of physiology and medical science fell to a man whose name, because of the barriers set up by a strange language, is little known to English-speaking peoples aside from the few who follow closely the progress of physiology. This condition was in a measure dispelled by the publication in 1902 of an English translation of a little book by him entitled, "The Work of the Digestive Glands," most of which appeared in Russian during or before 1897. Up to the time of this translation, it was necessary for the reader to content himself with the French or German translation of the work or of articles from his pen in the various journals published in these languages and devoted to physiological research.

The Nobel prize would seem to have been given in the case of Pawlow more as a recognition of a long and useful service to science than for any one achievement, since it came just at the completion of the quarter-century since his graduation in medicine. In the whole of this twenty-five years, it would appear that Pawlow's activity has been unceasing, and while I am not in a position to say that the award was not

based upon some one of his achievements, it is more probable that he received it as the founder and inspirer of the newer physiology of digestion. In this field he stands pre-eminent for originality of method and the attainment of results.

Pawlow's position as Director of the Imperial Institute of Experimental Medicine in St. Petersburg, gave him the opportunity that he needed to develop the suggestions of his scientific imagination. Here, it would appear, he has the means and the equipment provided for doing a work impossible to any one investigator or even to a few workers cooperating under ordinary circumstances. He is veritably a general commanding a force martialled against the powers of ignorance and directing his conquests into hitherto unexplored fields.

The work which Pawlow has here been carrying on was such as few men are trained to undertake. He came to it in the full maturity born of an intimate personal contact with those who had carried on the work before him. A year each in the laboratories of Heidenhain and of Ludwig was a part of the eleven years spent in the post-graduate preparation for his life-work, which in reality began with his entrance into the Institute.

Born in 1849, in Rjasan, he had his first education at a church school. After graduation he received his introduction to science in the University of St. Petersburg and later took up special physiological studies at the Military Academy of Medicine.

The great man in medicine in Russia and the one into whose service it was accounted a special distinction to enter was Botkin, who conducted a clinic in therapeutics. It was here that Pawlow obtained the practical side of the great questions into which he was to throw the force of his intellect. It is the lack of such training in the experience of many physiologists that indirectly casts upon their science an unmerited reproach. Here was a man whose practice started out on an even footing with his theory.

The equipment of the physiological department when he came to Botkin's laboratory was very limited but it is related of him that in the face of obstacles and of the pressure of work of a strictly practical sort he did find time to carry on some experimentation in hours taken from sleep. In fact, his special training was so far recognized by Botkin that the physiological and pharmacological work was placed under his lirection and before his service was finished he was lecturing upon physiology. Having taken a degree and fitted himself for an instructorship, he was presently appointed to direct the establishment of the physiological department of the Institute for Experimental Medicine, and here his work continues. He also bears the title of Professor in the Imperial Military Academy of Medicine.

The little volume which I have mentioned, upon "The Work of the Digestive Glands," is full from cover to cover with evidences that in the author we have a scientist of keen insight combined with a rare breadth of interest. From the first chapter, which introduces us to his wonderfully clever methods of investigation and in which he lays great stress

upon the service that strictly aseptic surgical procedure, as applied to operations upon animals, can give, to the last pages, in which we are given some ideas upon the necessity for animal experimentation and the limits of its value, the reader finds evidence that he is in touch with a real scientist. In the presentation of his own work, he opens up vistas of the possible that makes one long to enter the by-paths pointed out. Nothing is set down as fact except as it is founded upon repeated painstaking observation, and when hypothesis is offered it is done in a way to arouse our scientific sense and desire to see the proof. In other words, while we see in his work that which satisfies we are not asked to place an *ipse dixit* for a tested fact.

In any effort to give an idea of what Pawlow's work stands for in the progress of physiology, I can not in the few minutes at my disposal attempt to elaborate upon the experiments which he and his co-workers have carried out to establish facts but I would do well in the first place to enumerate a few of the operative measures employed and then state more or less categorically what these measures have made it possible for us to know and study.

It is important first to call attention to an operation which has facilitated the observation of what has been called the psychic secretion of gastric juice as distinguished from that shown in the second stage of gastric secretion due to a reflex stimulation from certain substances absorbed from the partially digested food. This operation is that of œsophagotomy followed by the bringing of the cut ends of the tube to the surface of the body, thus allowing the dog's food after mastication and swallowing to be passed out and intercepted on its way to the stomach. When these anatomical changes had been effected, the result of such psychic stimulation was easily observed on collecting the secretion through a gastric fistula. The same psychic secretion appeared when the food was merely offered to the animal so as to direct his attention and stimulate his appetite. It was further observed that this phenomenon, of psychic stimulation of gastric juice, was dependent upon the integrity of the vagus nerve, and that after section of the latter only the reflex from chemical stimulation, i. e., the second stage of secretion, was possible,

Another operation which has gone far to make possible direct observation of conditions in the stomach is that of so dividing this organ by section from a point on the greater curvature near the pyloric antrum in the direction of the fundus as to allow it, when sutured, to form two chambers, a large one identical in function with the normal stomach and a smaller one cut off from the larger by a double partition of mucous membrane and opening to the surface by a fistula. In certain cases, where needed, the larger stomach was made also accessible for observation by a second fistula opening upon the surface. Heidenhain had proposed an operation for the purpose of similarly isolating a portion of the stomach at about the same time, but Pawlow showed conclusively that the Heidenhain operation failed to take account of the distribution of the

branches of the two vagi nerves and the consequent disturbance of the normal secretion.

Again the section of the duodenum in such a way as to make both the upper and the lower ends accessible for observation and experimentation in the healthy dog, as well as the transplanting to the skin surface of a portion of the mucous membrane of the intestine containing the opening of the pancreatic duct and the ductus choledochus were operations of incalculable value in research upon the functions of the bile and the pancreatic juice. It is not to be thought that these operations had not been undertaken before but the perfection of their technique may with justice be ascribed to Pawlow and his men. As early as 1864, Thiry is said to have isolated a loop of the intestine and obtained the intestinal juice for separate study, but the thorough exploration of the chemical and other digestive processes going on in the various parts of the canal remained for Pawlow.

This imperfect list of the methods used by Pawlow shows how great was the surgical skill and ingenuity brought to bear upon the problems in hand. Through all his commentaries upon his work he urges the advantage of such measures over what he terms "acute" operations with the attempts to make observations upon the animal at the time of the operation. Having restored the animal to health after the operation he is, he believes, able to study functions practically unchanged in spite of the changed anatomical conditions. Many of his animals operated upon have been kept for years and afforded opportunities unexcelled for repeated confirmatory observation.

What shall we say that Pawlow has done for physiology besides giving it these advances in technical procedure? He modestly claims little for himself. In regard to the work, he speaks of it all, in the preface of his book, as to be referred to the whole laboratory, which is indeed a just statement, since the list of collaborators and the character of the work ascribed to each is such as to do honor both ways, but it is plain to see that it is Pawlow himself who furnishes the "uniform guiding principle," and through whom the experiments are harmoniously linked.

One can hardly mention a few single examples of the work done under his guidance without feeling that so much remains worthy of note that the effort is misleading. It is safe to say that owing to the researches of Pawlow we have today a more connected idea of the consecutive relations of the various digestive secretions and the functions of their constituents than would be possible without the methods which he has developed.

Of the saliva he has proved that its secretion is not controlled by appetite, nor yet by any general consideration of irritability of the buccal mucous membrane, but rather that this secretion, both qualitatively and quantitatively, is definite and purposive. Of the direct causes for this secretion he finds that dryness of the food is perhaps the most important but the presence of unsuitable or irritating substances in what is taken will also provoke an abundant flow. The watery portions of the secre-

tion are increased as a means of furthering the removal or dilution of unsuitable substances, while mucus is thrown about the food to facilitate its passage to the stomach. Mere mechanical stimulation, apart from these purposive conditions, is here, as also in the stomach, inert.

Furthermore, if the animal's "mouth waters" when substances offered to it act at a distance, this psychic secretion is under the same limitations as the ordinary secretion in being purposive and not the result of a general craving for food.

In the matter of the gastric juice that I have mentioned, the psychic secretion, which is so easy of demonstration, Pawlow considers to be more truly an appetite juice. If a dog be given food which, after chewing and swallowing, is allowed to pass out of the proximal cut end of the œsophagus, or if under favorable circumstances he be tantalized with food that he greatly desires, an abundant secretion of gastric juice of high digestive quality begins to flow from the isolated stomach. This furnishes an index of the whole gastric activity, and this gastric secretion practically always appears after a constant interval of five minutes, whatever be the nature of the stimulation.

Since this primary secretion of gastric juice is found by digestion of the foods to be able to carry the process far enough to produce an abundant supply of those albuminous substances which by their absorption stimulate the secretion of the secondary flow, it is evident how important both dietetically and therapeutically this subject becomes.

Among other important statements based upon experimentation is his belief that the varying necessity for acid is supplied by variations in the quantity of juice and not by changes in its acidity. The hydrochloric acid is found to act as a check upon its own secretion, while the organic acids, as products of fermentation, are stimulating agents to its secretion. Important, too, is the fact that the amount of gastric juice thrown out upon different quantities of the same kind of food is almost strictly proportional to their weights.

In the passage of the food into the duodenum the abrupt change from an acid to an alkaline medium has offered material for extensive investigation by the laboratory, and the study of the mechanism of control of the pyloric orifice, with what is analogous to a titration apparatus in which the "acid reflex" is the indicator, furnishes another instance of the purposive nature of secretion.

New evidence upon the adaptation of the pancreatic ferments to the foods submitted to their action, as well as upon the purpose and action of the bile are offered; and in the intestinal juice has been studied to the end that its functions are more certainly understood. The ferment contained in this juice, to which the name of enterokinase is given, is now known to supplement especially the proteolytic ferment of the pancreatic juice in a remarkable way. This proteolytic ferment of the pancreas under ordinary conditions is secreted as azymogen, viz., trypsinogen, which is inert until it is brought into conjunction with the juices of the duodenum. If the trypsin were secreted in its fully developed form, it would attack the starch-converting and fat-splitting ferments. Under

a prolonged meat diet, this condition practically comes about and the kinase of the intestinal juice in this event has no real function. However, ordinarily the developing action of the kinase upon the trypsin occupies a period sufficiently prolonged to allow a handicap to the starch and fat ferments.

In all this work Pawlow brings out as his main thesis the evident purposive character of every function concerned. In the salivary glands, for example, the dryness of the food is one element and its fitness another, to determine the character and amount of the secretion. This adaptation in the conditions observed in the stomach and intestine is even more striking. A definite amount and a definite quality of secretion for every need and no hap-hazard about it all.

The satisfying thing to the scientific observer in Pawlow's work is that, while he can take the broader conception, thus harmonizing the evidence he presents, he does so, not as a matter of metaphysics, but on the hard-pan of common sense.

896 Woodward Ave.

ASCARIASIS AND TYPHOID FEVER.

By F. P. ANZINGER, A. M., M. D.,
City Bacteriologist, Pathologist to City Hospital.
Springfield, Ohio.

That the ascaris lumbricoides may infest the alimentary tract of children without clinical manifestations is long established, but the peculiar behavior of this parasite when the host is infected with an acute infectious disease has received but little attention in medical literature. Osler in his "Practice of Medicine, 1904," under the head of Ascariasis, writes: "Chauffard, Marie, and Tauchon report a remarkable condition of fever, intestinal symptoms, foul breath, and intermittent diarrhœa in connection with the presence of lumbricoides. They call it 'typho-lumbricosis.' The febrile condition may continue for a month or more. The symptoms are supposed to be excited reflexly, or to be due to the virulence of the ascarides themselves. It does not seem to me a very clearly defined condition, and when one considers the extraordinary frequency of lumbricoid worms and the remarkable number which may be harbored without causing any special trouble, I think we require more evidence before we accept the conclusions of these authors."

The case which came under my observation was briefly as follows: Myrtle D., aged four years, patient, was of good build and well nourished. She had had none of the diseases of childhood.

History of the present trouble:

On September 14, 1904, the patient spent the day away from home, and took sick, complaining of headache and aching in the "joints." The following day the doctor was called and said she had "a touch of typhoid." The bowels moved 3 to 4 times a day, the abdomen was

moderately distended and tender, and fever was constant. I was called on the sixth day from the onset, and from my records report:

Status Presens.

Sept. 20. Attendance at the house. Child resting comfortably on a couch, the face is flushed, the body heat shows a fever, Tempt. 102 (axilla), pulse 120. Time, 3 p. m. On inspection two bright red spots are seen above the pubis, three faded spots over the epigastrium and another on the right buttock. The tongue has a moist gray coat, otherwise negative. Chest is negative. Abdomen moderately distended and tympanitic, but no tenderness or gurgle present. Splenic dullness negative.

Patient placed on liquid diet, small doses of calomel, and saturated solution of acetozone, ½ ounce every two hours.

Sept. 21—Morning tempt. 100°, pulse 110, respiration 31.
Evening tempt. 101.4°, pulse 112, respiration 34.

The Widal test was made with result:

Moist fresh agar culture used. Dilution 1-20 agglutination complete in one hour. Dilution 1-40 agglutination complete in 80 minutes. Dilution 1-80 incomplete agglutination in two hours.

Urine examination: diazo reaction negative, albumen and sugar neg., a few hyalin casts were found.

Sept. 22—Tempt. 99.6°, pulse 100 (evening). Patient feels comfortable and wishes to get up.

Sept. 23—This morning the patient coughed from her throat a round worm 20 cms. in length. It is of the lumbricoid species and the body is filled with embryo worms. The evening tempt. 101.8°, pulse 120. Patient is flushed, but remains quiet and comfortable.

Sept. 24—This noon the patient coughed up another large round worm. She does not become conscious of the worm's presence until it reaches the throat. It is then expelled from the mouth. Evening tempt, 100°, pulse 102.

Sept. 25—Today the third and largest specimen of round worm was expelled from the child's throat. Late this afternoon the patient had a profuse sweating. Evening tempt. 98°, pulse 120. The abdomen is more distended than the last few days, but the patient appears to be comfortable. The tongue remains the same. The appetite has been poor throughout the illness. The bowels move once or twice a day, with practically normal looking stools.

Sept. 26—From this date on the temperature remained normal, the abdomen gradually became more relaxed, the appetite improved and the patient was anxious to get up and play. I continued rest in bed with liquid diet for one week after the temperature returned to normal. Convalescence was rapid and complete. Patient at present writing is well.

Epicrisis.

In this case we have conclusive evidence of typhoid fever; the drinking water used was taken from one of the wells in the city, which are all more or less unsafe. The clinical history together with the Widal test prove the same to have been mild typhoid fever. The round worms probably existed in the bowel of the child before the typhoid infection occured, yet gave no symptoms. Why all the worms should follow the more unusual passage by way of the oesophagus is not readily explained. I reported this case before the local medical society, when one of the physicians facetiously remarked that the worms displayed good judgment in not selecting a route infested with typhoid "bugs." If it had occurred to me at the time it would have been interesting to note whether the worms themselves had typhoid bacilli in their bodies. Several good explanations must be given why the worms should migrate from the host; chief of these being, restricted diet, intestinal antiseptics, fever, and possibly typhoid toxin.

Conclusions:

Ascaris lumbricoides occurs commonly in children without manifest symptoms. Typhoid fever is relatively uncommon at this age, which probably accounts for the infrequent observation of the same as associated with round worm disease.

The condition reported as "typho-lumbricosis" is probably not a distinct entity, but represents a dual complication as in the case reported above.

The symptoms of typhoid fever in young children are often obscure and the condition may be mistaken for gastro-intestinal disturbance. In such an event the intestinal parasite may receive all the blame, especially when the fever promptly disappears with their removal, as happened in the above.

Finally, in medicine, coincidence plays an important role which is ever ready to lead the unwary to false conclusions.

LEUCOCYTOSIS IN PURULENT AFFECTIONS.*

By JOSEPH SILL, M. D.,
Detroit.

The occurrence today of a symposium on Appendicitis makes a brief discussion of leucocytosis in purulent affections from the view point of the laboratory man not inappropriate.

Cabot defines a leucocytosis as "an increase in the number of leucocytes in the peripheral blood over the number normal in the individual case, this increase never involving a diminution in the polymorphonuclear varieties, but generally a marked, absolute and relative gain over the number previously present."

From this definition we see that there are two elements in a leucocytosis; the increase in the absolute number of cells, and the relative increase of the polymorphonuclear forms. Considering only the leuco-

*Read before the First Michigan District Medical Society, March, 1905.

cytosis accompanying purulent processes, we may say that there are two factors entering into its production; the infection and the resistance of the body to that infection. Of these the first seems to be responsible for the relative increase of the polymorphonuclear cells, and the second for the increase in the absolute number of leucocytes.

If now we arbitrarily consider infections to be of three grades; mild, severe, and overwhelming, we will have for each a characteristic blood picture.

If the infection is mild, it may not affect the leucocytes in any way, and the blood will appear normal.

If the infection is severe enough to stimulate the resisting powers of the body to activity, we will have an increase in the number of leucocytes, and an increase in the proportion of polymorphonuclear forms.

If the infection is so severe as to overwhelm the resistance of the body, we will have no increase in the number of leucocytes, but the polymorphonuclear forms will predominate.

I should like to suggest that the essential feature of a pus leucocytosis is not the increase in the number of leucocytes in the peripheral blood, but the increase in the proportion of polynuclear forms.

With this understanding of the significance of a leucocytosis, its determination by blood examinations involves not only the count of the leucocytes present in the peripheral blood, but what in the laboratory we call the "differential count:" that is, determining the proportions of the various varieties. In fact I think of the two procedures the differential count is the more important, for one who has had some practice in making and examining blood smears can get a fairly accurate idea of the number of leucocytes present by an inspection of the stained smear.

In considering the diagnostic and prognostic value of the leucocyte count, we must determine first of all what is normal. This, of course, varies with the individual, and depends on many conditions. In general, we may say that the vigorous and well nourished person will have normally a high leucocyte count, while the ill nourished and frail individual will have a low leucocyte count. The limits of the normal variation may be roughly set as 5,000 and 10,000.

In exactly the same way will the proportion of polymorphonuclear forms vary, being higher in the well nourished, and lower in the poorly nourished. The limits of the normal variation in the proportion of polymorphonuclears may be roughly set as 62 per cent. and 70 per cent.

From this we see that a leucocyte count that would indicate a leucocytosis in one patient might be a normal condition in another. In general, whenever the percentage of polymorphonuclear forms reaches 80 or more, we may feel reasonably certain of the presence of pus, without regard to the absolute number of leucocytes; granting, of course, that the clinical condition warrants such a diagnosis, and no other condition is present that would raise the percentage of polymorphonuclears.

A great deal of time and energy have been expended in studying the variation in the number of leucocytes in the peripheral circulation in various conditions, but only recently has the value of the differential

count been appreciated. We hear much of the ascending count in appendicitis, but very few differential counts are available. Bare counts of the number of leucocytes are of comparatively little value, but a very good idea of the course of an infection may be gained by repeated observations of the relation existing between the number of leucocytes, and the percentage of polymorphonuclear forms. If both increase together, it means that an increasing infection is being met by an increasing body resistance. If both decrease together, it means that the infection is being overcome. If the number drops while the percentage of polymorphonuclears remains high, it means that the infection is spreading, while the resistance of the body is being overcome, and the outlook is unfavorable.

Before closing I want to emphasize one point which I think cannot be too strongly urged. Just as there are few pathognomic signs or symptoms, so there are few diagnostic laboratory examinations. The laboratory man cannot interpret the blood findings in a particular case unless he knows something more of that case than he can learn from the examination of the blood. All he can do is to report his blood findings to the clinician who must interpret them for himself in the light of the history and present condition of the patient. It is unfortunate that we cannot all be expert clinicians and skilled in laboratory work at the same time, but the sum total of medical knowledge has become so vast and is increasing so rapidly that it is utterly impossible for one man to keep abreast of the advance in all departments of medical research. A division of labor seems necessary, and the opportunity to become skilled in clinical diagnosis and in laboratory technique comes to but few. Since a division of labor has been necessary, the solution of the problem of getting the greatest value from laboratory examinations both for the clinician and the laboratory man lies in co-operation. If they would adopt the attitude of consultant in so far as to enable them to get together and talk over the case in point, not only would the clinician sometimes gain information in regard to the particular case under discussion, but it would be a great help to the laboratory man by bringing him directly in contact with the relation of his findings to clinical conditions.

Detroit Clinical Laboratory.

DUTY OF THE STATE IN THE CARE OF CRIPPLED AND DEFORMED CHILDREN.*

By H. WINNETT ORR, M. D.,
Lincoln, Nebraska.
Editor Western Medical Review.

It is recorded in the annals of biology that there was a time when living matter existed as a simple mass of protoplasm. There was no such thing as an individual animal or plant with its different parts, each consisting of highly specialized cells; and different organs fitted through long specialization to the performance of special functions. So in the beginning of society there existed no differentiation of individuals for the performance of special functions in the community. Now, after several

*Read before the State Conference of Charities and Corrections at Kearney, Nebraska, February, 1905.

thousand years of development, we have men and women fitted not only by individual training but actually by hereditary tendency for the performance of special functions. Under our present system of government, for example, all legal affairs require for their interpretation and administration members of the so-called legal profession. The lawyers in our country have a monopoly of the administration of the law and no one has any fault to find with the fact. Even the youngest of our attorneys are conceded by everyone to be better informed regarding legal matters than any man who has not passed through the academic and collegiate training requisite to the obtaining of the degree of Bachelor of Laws. When we turn, however, to the doctor of medicine, we find a considerable amount of confusion. Owing to the inattention of medical men to the more purely business side of their profession they have endeavored to obtain but few laws looking to the protection of their business interests. From time to time laws have been passed looking to the establishment of an educational standard by which candidates for the practice of medicine might be judged. Quack practitioners have always been able, however, to resist such measures with some degree of success, so that while one may apply for assistance in legal matters to any man who calls himself an attorney with the assurance that the lawyer has fulfilled certain educational requirements, he may consult in the same office building a man who calls himself a 'doctor,' who has never had any education to fit him with special knowledge of the human body or of its ailments.

Some of you may regard this preface as a diversion from my subject, yet it all leads to the assertion which I now wish to make, namely, that there are now in our state alms houses, and in many homes where improper or no care at all is given to them, in the state of Nebraska, somewhere in the neighborhood of 250 or 300 children, crippled and deformed, who could at this moment be well or improving, or at least under proper care, if a properly qualified physician were given the same authority in medical matters as is accorded to a state or county officer of the law. It is regarded by many as an invasion of the rights of personal liberty to insist upon the removal of a child from its parents in order that it may have proper medical attention, and yet legal authority for so-called moral reasons has no scruples in removing any member—even the head of a household upon whom rests the integrity of the home, if he is regarded as a menace to the life or welfare of any other individual in the community. Every crippled child now being neglected in the state of Nebraska is being neglected not only by its parents, but by the state. The majority of these crippled and neglected children may be depended upon later in life, if they survive, either to become objects of private charity or to continue to live dependent, to be cared for by the state. In many cases their diseases are such that they will endanger the lives of all those with whom they are associated. If physicians had the authority to compel these children to be cared for by specialists in such diseases, a large number of them could not only be saved from death and from becoming dependents, but could be made to become self-supporting

citizens and be given an even chance with the other members of any community.

There are both abundant and peculiar reasons why such patients should be cared for by the state. In the first place, both the children who are congenitally crippled or deformed and those who become so subsequently through disease or injury, are patients who require treatment over a long period of time to give them improvement or cure. It is a matter that is commonly known, for example, that little Lolita Armour, under the care of Professor Lorenz, was a patient for a matter of three years or so in securing relief from a congenital dislocation of the hip. Children who are affected with tuberculosis of bones or joints are frequently obliged to wear apparatus for a number of years and must in addition to this, be subjected at intervals to operative or manipulative treatment by experts in such special lines. Operations for club foot and club hand must not only be followed by the wearing of a plaster paris bandage for a number of months, but such patients must frequently be subjected to repeated operations before the final and best result is reached. Reports of orthopedic hospitals will show that where the total resident capacity of any hospital is 100 patients, there will be less than half who leave the hospital in the course of a year to make room for new patients. This is sufficient to show the length of time necessary for such patients to remain under treatment. Before such a course of treatment is completed, both patient and parents (if the patient is at home) become discouraged and either discontinue treatment altogether or pass the patient along to some one who will promise more speedy results than the physician who has the patient under his care. Dr. John Ridlon, of Chicago, one of the most skilled orthopedists in this country, has had the experience of having a patient removed from under his care, to be placed in the hands of an osteopath of little knowledge and no special training, because the osteopath promised to secure in six weeks' time a result that Dr. Ridlon assured the patient would require two years to obtain. Perhaps it is unnecessary to add that some time after the six weeks expired, the patient returned to Dr. Ridlon in a worse condition than when the osteopath began, and the second time quite willing to abide by Dr. Ridlon's decision regarding the outcome of his treatment. Another item which militates against the proper care of these children in ordinary hospitals or in the home, is the expense of such prolonged treatment. It is impossible to care for such patients without more or less expensive apparatus and without an amount of attention which a physician in private practice can only give when he is properly remunerated. Physicians give more now of time and money to the relief of the sick poor than any other class of members of society, but there are some lengths to which even the physician cannot go in the bestowal of service and time to charity. Parents who are obliged to pay for the care of such patients as I have described, if they are poor or in even only moderate circumstances, soon exhaust their money as well as their patience in the search for a recovery. When this point has been reached the patient is either consigned to some charitable institution or permitted to become worse be-

cause the parents are unwilling to accept charity. For all such cases as these it is the obvious duty of the state to provide care. A hospital with a capacity of 150 patients could certainly be filled if the state of Nebraska were doing its full duty to its children. Many a child born into a poor family in a crippled or deformed condition is made a beggar to provide the wherewithal for the support of the entire family. Such a child with such training, usually becomes a criminal prey upon society for the rest of his days when he might have been made a self-supporting and useful member of society if physicians had the right to invade that home and place the child under such care as he needed. When the state recognizes that society has certain physical rights which should be regarded and which should be administered by men of expert training qualified for administering the laws of health in every state and community, then it will be easy not only to care for such crippled and deformed children as exist, but it may be possible also by an inspection of candidates for matrimony to provide against bringing into the world from 80 to 90 per cent of the children who are born destined to blindness through infection at birth with the germ of one of our so-called social diseases. Thousands of others of deformed and crippled children might be spared ever coming into the world or being placed upon the roll books of our public and private charities if marriages between the tubercular and syphilitic were forbidden. Physicians have pointed out the dangers of these things for years and society is gradually awakening to the necessity for observation of the laws of hereditary tendencies and transmission of disease. For the immediate solution of the problem of the care of these children, it is necessary for us to realize that there are many functions which parents and which even private charities cannot perform, and which must be submitted to state hospitals if we would make the best of our opportunities for doing away with the dependent classes. Childless couples will rarely adopt or even temporarily care for the crippled and deformed. The question of boarding out or institutional care which enter into a discussion of the disposal of healthy children do not enter into this discussion at all —the only possible solution of the problem is an institution provided either by private charity or by the state.

DR. METCALF'S CLINIC.

At Harper Hospital, December, 7th, 8th and 9th, 1904.

REPORT OF CASES—CONTINUED

Case XVIII. **Gonorrhoeal peritonitis, at one stage simulating appendicitis. Failure of conservative treatment.** (Dec. 8th, 4:30 to 6:00 P. M.)

Miss M., aet. 21. Family history negative. Had measles and whooping cough in childhood. Matured at 14; irregular , intervals being of 6 to 12 weeks. About one year ago she had an attack of severe pain in the abdomen with vomiting. The pain later became localized at McBurney's point. She was in bed one week. On Nov. 4th, 1904, she entered the hospital, with temperature at 101. and pulse, 108.; marked distension of abdomen, with extreme tenderness and nausea. Her stomach was washed, all food was denied, and ice-bag applied to the abdomen. In three days the tympanites had nearly disappeared and the pulse became normal but the temperature remained elevated, ranging from 99. to 100.5. Patient was closely questioned but would not admit any possibility of venereal infection. Bimanual

examination was made on Nov. 8th and a large mass discovered behind and to the right of the uterus. The uterus itself was immovable. There were now severe attacks of pain in the pelvis requiring frequent use of morphine. Catharsis or enemata added to her pain. On Nov. 14th exploratory abdominal incision was made. The peritoneum was found to be several times its normal thickness; both tubes were filled with pus and adherent in the cul-de-sac. The small intestines were adherent above them, walling in the pelvic contents. The appendix was found normal. Among the coils of intestines and filling the cul-de-sac was a thin gray pus. This pus was removed with gauze sponges and the infected pockets wiped out with gauze sponges saturated with solution of bichloride of mercury. Adhesions were broken to liberate pus and favor free drainage. The uterus was suspended from the anterior abdominal wall to hold it and its appendages up out of the abscess cavity. The pelvic cavity behind the uterus and tubes was loosely packed with iodoform gauze, the end of which was brought down into the vagina through a wide opening made in its posterior vault. This operation made very little change in the patient's comfort, although her temperature and pulse improved as a result of lessened sepsis. She is complaining now (Dec. 8th) of constant pain in the pelvis; her temperature has again risen to 100. and the pulse is 108. The leucocyte count is 14500, with 83 per cent. of polymorphonuclears.

This girl has to support herself; she has now been in the hospital for more than a month and is no better and has little prospect of permanent improvement without relief by radical measures. After the case had been shown to harbor the gonococcus, the patient was told the cause of her trouble, when she finally admitted that she had tried to deceive, for what seemed to her necessary reasons. She then admitted that she had repeatedly been exposed to the danger of such infection.

The abdomen will now be opened. Hysterectomy, except in case of large tumor, does not necessitate a long incision; the one I have made is only 7.5 cm. long. You see that the peritoneum is greatly thickened; the intestines are again matted together and are adherent to the pelvic viscera. Both Fallopian tubes are large and filled with pus, both ovaries fibrocystic and the uterus spongy. I will now free all adhesions and, clamping the left ovarian artery, cut beneath the corresponding tube and ovary, through the broad ligament to the uterus and clamp the uterine vessels of that side. The scissors now cut downward close to the uterine cervix. After separating the attachment of the bladder to the uterus, the bladder is held forward so as to draw the ureter out of the way and thus permit us to extend the incision downward into the vagina. As the vagina is approached, we turn aside into the tissue of the cervix uteri so as to leave a large part of the portio vaginalis and some of the muscle tissue of the lowest portion of the cervix but to remove completely its mucous lining and that area of the portio vaginalis immediately surrounding the external os uteri. Iodoform gauze is now pushed through this opening into the vagina in order to protect the abdominal cavity from infection. The cervix uteri is now grasped by a double volsellum and turned upward so as to permit a reverse incision, corresponding to that just described, to be carried upward through the cervical tissue upon the opposite side of the uterine canal. The uterine and the ovarian vessels are clamped in turn as the incision extends to them.

With catgut the ovarian vessels are first ligated near the pelvic brim and the same ligature is employed to catch up the uterine vessels on the corresponding side and their branches in the broad ligament. This same stitch pierces the cervical margin and round ligament. By the traction induced in tying this ligature, the vault of the vagina is drawn high in the pelvis, the cut edges falling into a line almost straight across from one side of the pelvis to the other on the level of the ligatures upon the ovarian arteries, thus insuring a deep vagina. The peritoneum left attached to the bladder, which was left as long as possible, is now stitched over the cut edges, covering as completely as may be the denuded surface. The abdominal wound is now closed and the vagina filled with iodoform gauze.

The patient's reactionary temperature reached 101. for a few hours; the following day it declined to 99.4 and did not again rise. Highest pulse-rate, 106. The abdominal wound healed by first intention and patient left the hospital on Dec. 29th in good condition. June 1st she reported herself perfectly well.

Case XIX. **Fibroid of uterus. Vaginal hysterectomy.** (Dec. 9th, 9:00 to 9:45 a. m.)

Mrs. C., aet. 45. Family history negative. Menses began at 13; dysmenorrhoea always severe. Married at 20; has had four children, youngest 16 years old. With each menstrual period, patient has a rash upon the face. Has menstruated twice only since last June, during which time she has been depressed by grief over the death of a son. Has pain in the back and head and severe sharp pain in the pelvis. She is obstinately constipated and has no appetite. Physical examination reveals a fibroid in the anterior uterine wall. Report upon the blood shows some reduction in haemoglobin. The urine is found to contain a few hyaline casts.

Vaginal hysterectomy is performed, together with removal of the appendages. The ovarian and uterine vessels previously clamped are first ligated, as soon as the organs are removed, and the cut ends of the broad ligament are brought together. As in the abdominal operation just described, although by a method quite different, this manoeuvre raises the cut edges of the vaginal wall high in the pelvis, thus increasing the length of the vagina. The opening into the abdominal cavity is closed by stitching the anterior to the posterior peritoneal flap at the upper margin of the broad ligaments thus united.

After operation, patient's pulse for a time rose to 130. with temperature at 99. Vomiting was troublesome for a week. Otherwise recovery was uneventful, except that a rapid heart action, 100. to 120., continued throughout her stay in the hospital. She returned home January 1st. Report from her physician, dated April 18th, reads: "I am glad to report that Mrs. C. has been steadily gaining."

Case XX. **Repair of cervical and perineal lacerations.** (Dec. 9th, 10:00 to 11:00.)

Miss D., aet. 36. Family history negative. Matured at 13. Menses regular and normal. Had one child ten years ago. Two years ago she began to suffer from headache, backache, nausea, constipation, insomnia, and coldness of the hands and feet, together with pain in the left ovarian region. At that time, repair of existing lacerations was done by another surgeon. There was left, however, a considerable amount of scar-tissue in the upper part of the cervix upon the left side, as determined by palpation against a sound passed through the cervical canal. The cicatrix may have been removed at the former operation and may then have re-formed by reason of imperfect approximation or infection in the wound. To avoid failure due to imperfect approximation, it is necessary, in some cases, to bring together the upper angle of the wound with a buried catgut stitch, especially where a large cicatrix has been removed at the junction of the cervix with the corpus uteri.

In this case the uterine body is sensitive to pressure and boggy to the touch. There is chronic metritis and to assist drainage from the infected area I will dilate the cervical canal with graded sounds and curette the endometrium, thus opening the mouths of the mucous glands and permitting the freer flow of their secretion. I now disinfect the cavity by the application of pure carbolic acid, a perfectly safe and a very useful measure if the tissues be immediately bathed in alcohol. I now split the cervix from side to side, and remove the cicatrix. You can readily understand how such a hard lump of cicatricial tissue, practically a foreign body, lying at the junction of the cervix with the corpus, a part most richly endowed with nerve-endings, may cause many reflex disturbances. Such a condition is found in cases too, where the laceration at the external os is insignificant. For the main stitches, I sometimes use catgut in the repair of the cervix, but I believe silkworm-gut, which can be boiled at the time, is the most universally useful suture for the purpose. For the idea of this double-shotted suture, the use of which greatly facilitates the removal of the stitch, I am indebted to Dr. Longyear, of this city, who has described it in his own reports.

We now proceed to the repair of the perineum. By pressure downward and laterally, with the finger in the lower vagina, it is easy to see that in this case many of the fibres of the levator ani muscle are torn from their attachment to the ramus of the pubis on the patient's left. These somewhat obscure lateral tears more seriously interfere with the supporting function of the perineum than would a more obvious laceration extending widely through the perineal body in the median line, and cystocele and rectocele are a more common result.

Upon this case I will do an operation, in principle according to Emmet, but with a technique somewhat modified. With a pair of scissors curved upon the flat, the mucous membrane is separated along the skin margin from the orifice of one vulvo-vaginal gland to the other, following around the posterior commissure.

The posterior angle of the mucous membrane thus freed is then grasped with forceps and progressively dissected upward from the submucosa. The torn levator muscle is then repaired with buried catgut sutures, and the transverse muscular structures are restored by buried catgut passed from side to side. A triangular piece is now removed from each side of the flap of mucous membrane raised from the perineal surface and posterior wall of the vaginal outlet, just large enough to leave the central tongue sufficient to cover the surface left denuded. The margins of this tongue of mucous membrane are then approximated to the skin edges and fixed with a fine continuous catgut suture.

This patient's subsequent highest temperature was 99.8 and the highest pulse-rate was 108. She left the hospital Dec. 27th. She returned to the hospital March 18th, saying that she had not been relieved from the soreness and dragging in the pelvis; that she was unable to work and, as she was dependent upon her own work for her support, she must have relief. Examination showed that the local result of the operations upon the cervix and perineum was all that could be desired but that the uterus still remained sub-involuted and boggy and extremely sensitive. A median exploratory incision was made. The appendix vermiformis was found to be long and poorly supplied with blood and its lumen contained concretions. The left ovary was fibro-cystic and slightly enlarged; the right was atrophied. Both Fallopian tubes appeared normal. Direct observation confirmed the previous diagnosis of chronic metritis with enlargement. The uterus, together with its appendages, was removed; likewise the appendix vermiformis.

The patient's highest temperature was 99.4 and highest pulse-rate was 98. She left the hospital in good condition April 5th. At the end of June she reports herself as "almost perfectly well," and says that she has taken up her regular work.

Case XXI. **Hysterectomy as a last resort, to relieve local pain and reflex disturbances.** (Dec. 9th, 11 A. M. to 12 M.)

Miss J., aet. 19. One brother has tuberculosis of the joints. Patient has never been well since menses began; always severe dysmenorrhoea throughout entire period, often accompanied by nausea and vomiting. At last she became exceedingly nervous and apprehensive. On Sept. 29th, 1903, I removed the right ovary and appendix vermiformis. Little or no benefit, however, resulted. Later she suffered much dragging pain in the right renal region, with nausea, and at times there would be severe cramping in the abdomen with inability to urinate. Upon deep inspiration, it was observed under palpation that the right kidney would descend to the pelvic brim. A right nephropexy was performed on Feb. 13, 1904. The uterus was again disinfected at the time of this operation, yet her dysmenorrhoea and headaches continued. She did not recover from the exhaustion due to suffering at one period before another one was due. So far as the urinary symptoms were concerned the nephropexy was satisfactory.

Recent examination shows the uterus larger than normal and pitting under pressure. The other ovary has become cystic and is about the size of a hen's egg. All the other abdominal organs appear normal. The right kidney now remains fixed in position. Blood-examination has shown haemoglobin to be 80 per cent.; leucocytes, 8,500., with 61 per cent. polymorphonuclear cells. The urine is normal.

So evident was the relation of this patient's reflex symptoms to the abnormal condition of the pelvic organs that it was decided, in spite of her age, to cut off the further necessity of her periodic suffering. An abdominal hysterectomy was performed in the Clinic on Dec. 9th, at noon. I saw the patient at 8 P. M. of the same day, when she was apparently in good condition. At midnight one of the hospital internes was called and found her pulseless but instead of reporting the fact to me or to one of my assistants, he gave transfusion and left her. She died

at 8:25 A. M. of internal hemorrhage. Had any surgeon been notified, her life might have been saved.

Pathological report: Left ovary, a honey-comb of cysts, large and small, chiefly follicular. One corpus luteum not normally undergoing atrophy. Fallopian tube, essentially normal. Uterine body oedematous; a considerable layer of poorly staining connective tissue in the subserous layer of the musculature. At the internal os uteri the mucosa shows a rather pronounced interstitial increase and no increase of glandular structures. In the canal of the corpus and fundus, however, there was extensive glandular hyperplasia and relatively much less interstitial deposit.

Case XXII. **Puerperal sepsis, complicated by infected dermoid cyst.** (Dec. 9th, 1:00 to 1:30 P. M.)

Mrs. P., aet. 34. Menses began at 12; irregular, interval from two to eight weeks; excessive and painful. Was married in 1892. Has two children, aged ten and two years. Was in bed six weeks following miscarriage in 1898. Had another miscarriage at four months, about five weeks ago. Was curetted one week ago. I first saw the patient last night. Her temperature was 101.5 and pulse 120. She said that before this last sickness she had suffered greatly from headaches, backache and constipation; that defecation had been painful and she had passed blood and mucus with the stool. Her abdomen was sensitive and she presented the appearance of an anaemic woman further exhausted by sepsis.

When brought into the Clinic, the patient took the ether badly and her condition was such that saline infusion was ordered at once. On completing the examination under anaesthesia, the uterine cavity was found large, and its walls thin and flabby. The cervix was dilated and the cavity explored with the finger but nothing was found. The cavity was then disinfected with pure carbolic acid, followed by alcohol, and loosely packed with iodoform gauze. The posterior cul-de-sac was opened by free incision through the vaginal vault. The right ovary was found to be the size and shape of a pear, and its color indicated a purulent content, and it proved to contain an infected dermoid cyst. It was therefore brought down into the vagina and removed after its blood-supply had been ligated. Iodoform gauze was then packed behind the board ligaments in the pelvic cavity through the cul-de-sac incision.

An ulceration of the upper rectum was found, causing partial stricture. This was treated daily for a time by injecting through a Wales bougie, two ounces of the following mixture: Iodoform, one dram; bismuth subnitrate, two ounces; olei amygd. dulc., one pint.

The patient's temperature remained about the same for two days after the operation and then gradually declined to normal. The gauze was removed from the uterus on Dec. 11th, and from the cul-de-sac on Dec. 15th. Twenty-four hours later there was considerable discharge from the cul-de-sac opening and a douche of normal saline solution was commenced and given daily until she left the hospital, which she did on Dec. 24th. In going to her home she endured a long railroad journey. As to her present condition, I quote from a letter written by her family physician: "The result thus far obtained in the case of Mrs. P., referred to you in December, has been and is all we could wish for. After she returned from Detroit, I douched the cavity as per instructions until early in February, by which time all discharge from the cul-de-sac had ceased. Though improvement in her general condition was apparent from the day she came home, it became much more marked after the discharge ceased, and now she weighs more, looks and feels better, has better appetite, in fact is better in every way than she has been for the past twelve years." So much may be said for the patient who gave the most desperate prospect, as she appeared in the Clinic, of all those who were operated upon during these three days. The microscopical examination confirmed the diagnosis of dermoid of the ovary removed.

(*To be Concluded*)

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Medical Education of the Public.

"In view of the public interest in medical matters, it is the duty of physicians to enlighten the public so that persons of immature or erratic ideas will not need to pose as exponents of the medical profession, as sometimes occurs." This statement appears in a short editorial of the Journal of The American Medical Association and must elicit a vibrant note in the minds of many medical men. How often it occurs that the man who is most willing to expound medical science in public is the one least qualified to do so, and would be the last choice of representative physicians for such a purpose! Our profession is so beset with ethics limiting our activity that there is an insurmountable hesitancy in speaking or writing for the public. Our conservatism and apparent apathy are products of the same restricting factors. We see and hear fantastic utterances of fakirs, quacks, and tyros, we growl and grumble about it to one another, but never a move is made to set matters right.

There is an urgent need in this country for courageous men to do courageous deeds. Courage might lead competent men, backed by their local associates, to inaugurate an era of education of the public in medical matters. Newspapers, for the most part, are hostile to honest practitioners because they are virtually bribed by the quack; but in this very city one newspaper makes a stand for decency in its advertising columns, and all the high class magazines would welcome contributions. Collier's Weekly is crusading against the nostrum evil, Mr. Adams has written presciently on vital topics. But these are lay articles. Is the profession content to see the way blazed by any but its own members? The Jour-

nal of The American Association is fighting valiantly against certain evils; but this reaches only medical men, while the greater necessity lies in reaching the nation's millions.

Let the physician of intelligence and high standing accept every chance to address the public, by word of mouth or of pen; let his fellows not carp at him for seeking notoriety, but rather support and encourage him, and themselves do likewise. The enemies of legitimate medicine attain their ends by publicity and they can best be met with the same weapon; but while the publicity of the former is shameful, the publicity used in defense may be made dignified, equally potent, and absolutely ethical. This is provided always that there is co-operation and harmony. Let us read the farewell address of Dr. Osler on "Unity, Peace, and Concord," and in assimilating his exhortation, tender our praise to the first man who takes a step toward educating the American people in things medical.

Recent Epidemics in Michigan.

On August 19th the small-pox hospital of Grand Rapids was for the first time without a patient since April last. During this time the second city of the state has harbored 260 cases of this remarkably contagious disease and 33 people have died. For weeks outsiders shunned the city. The small towns who send a large daily delegation of shoppers into the city, held back in terror of the plague. The city's own citizens who happened to be away from home when the outbreak came, delayed their return. Schools, theatres, and churches were closed, graduating exercises forbidden, factories shut down and business in general depressed. The actual money loss to the city is difficult to estimate, but it easily reaches into hundreds of thousands of dollars. The cost of the actual care of patients by the city authorities was over $15,000. Thus must our lessons in vaccination be taught!

That the medical profession, through sins of omission at least must bear a part of the responsibility for the misfortune of this visitation is undeniable. As in nearly all the other Michigan cities where small-pox has been recently prevalent, the public authorities in Grand Rapids found the physicians were negligent about reporting cases of small-pox which were under their care. Three physicians were arrested for failure to report cases. Up to this time only two have been tried. In one the jury disagreed; in the other the prisoner was held not guilty. The arrests had the desired effect, however, during the epidemic, practically all the cases afterward being reported. No satisfactory explanation of the failure to stop the epidemic in its early stages has been offered.

Another instance of epidemic disease, less extensive and fatal, but peculiarly atrocious in circumstances, was the outbreak of typhoid fever at Alma. Late in June at the time of the commencement exercises of Alma College, there was no typhoid fever in or near that city. The usual large number of visitors attended the many pleasant attractions of the traditional small college graduation week, and the festivities concluded with a banquet. About the middle of July several cases of typhoid appeared in the college settlement of Alma, and classmates now scattered

for their vacation to all parts of the state and beyond began to be reported as sickening with typhoid fever at about the same time. An investigation revealed the fact that 23 of the persons who participated in the commencement banquet were simultaneously taken ill with typhoid fever. Six cases have died to the time of this writing.

The State Board of Health investigated the outbreak at the request of the Governor, and decided that the probable cause was the ice-cream served at the banquet. This decision was reached by exclusion, no other cause being found. The ice-cream came from Bay City where typhoid was prevalent.

Typhoid fever is largely a filth disease. Among people who are too ignorant or careless to take sanitary precautions, it occurs constantly; but persons of cleanliness and care who avoid all ordinary and usual sources of contagion have a right to protection from widespread distribution of disease germs in articles of food. The victims in this instance were the flower of the State. Largely young college graduates celebrating the conclusion of their preparation for the real work of life, there lurked in the festive dish the messenger of death,—stolen from the haunts of filth and disease to sit at this feast because the state of Michigan does not properly inspect one of its chief supplies of food, its milk. Not long ago, Detroit had a small epidemic of scarlet fever traced to a dairy. A recent author has compiled a list of 34 epidemics in the last few years in this country, some with hundreds of deaths, all caused by infected milk. Now, within a few days, comes a newspaper report from Bay City, that the dairymen are being "persecuted" by the state dairy inspectors, because the latter insist on decent handling for a food product! If these inspectors fail in their full duty to protect innocent people from the negligence of incompetent dairymen, the blood of these innocent youths who have already been the victims of Bay City dairymen be upon their heads!

Association of Military Surgeons.

Attention is called to the program of the Association of Military Surgeons which meets in Detroit on the 26th inst. There are many papers of general interest on the program and many distinguished men will be present representing our own and foreign governments. Perhaps the man who will attract the most attention is Surgeon-General S. Suzuki, of Japan, chief medical officer of Admiral Togo's fleet. He will represent Japan at this meeting, and is on the program twice. It is to be hoped that Detroit physicians will show their appreciation of the invitation to attend the scientific sessions.

EDITORIAL NOTES

WANTED—Position as male attendant to semi-invalid. Local or traveling. Contract by the year reasonable. Nine years experience and unquestionable references. Paralytics a specialty.
Address Attendant, Care Detroit Medical Journal.

FOR SALE: Physician, doing large general practice, is about to confine his work entirely to a specialty. Will sell his fine brick residence, situated in half-mile circle of City Hall. First floor contains drawing room, large library, dining room, kitchen, pantries, etc. Wing with separate entrance has large reception room, also separate room for secretary's office, and private office. Five large sleeping rooms upstairs with bath. Large brick barn, 50x22, having ample coachman's quarters. Those meaning business apply to X. Y. Z., Care Detroit Medical Journal.

Grand Rapids Medical Societies.

The officers of the Grand Rapids Medical Societies for the ensuing year are as follows:

Academy of Medicine.

President—Dr. O. E. Herrick.
Secretary—Dr. W. J. DuBois.
Treasurer—Dr. Chas. E. Hooker.

Kent County Medical Society.

President—Dr. E. G. Edwards.
Vice-Pres.—Dr. T. C. Irwin.
Secretary—Dr. F. J. Lee.
Treasurer—Dr. S. L. Rozema.

Yellow Fever in Michigan.

Through the kindness of Dr. G. L. Kiefer, who visited the case described, we are able to give our readers the following facts about the very unusual occurence of a case of yellow fever in Michigan.

A young man named Gus Lindberg, a linesman by trade, arrived at his father's house some five miles from Nunica on August 9th. Nunica is a hamlet near Grand Haven. The young man had been working at his trade in Louisana and had been within twenty-five miles of New Orleans. He was not well when he came home but did not call a physician until August 18th. Dr. Hughes, who was called at that time, found the patient with a high temperature, which persisted, delirious and icteric, and having occasional hematemesis. Having had some experience with yellow fever during an epidemic in Jacksonville, Florida, some years ago, Dr. Hughes, considering the symptoms and history of the case, made a prompt diagnosis of yellow fever and quarantined the house. When seen by Dr. Kiefer and City Bacteriologist Hayward with Health Officer Koon, of Grand Rapids, the man was still icteric and had a temperature of 102°F. He was improving, however, and seemed in a fair way to recover. These gentlemen, in view of the history as given, could not contradict the diagnosis. They considered the quarantine effective.

It is interesting to note that this young man passed through the quarantine at the state border of Louisana by virtue of a health certificate signed by a physician.

Program Wayne County Medical Society.

Medical Section—

Monday, September 11.

Modern Therapeutics and the new Pharmacopoeia. Dr. W. J. Wilson, Jr.

The Classes of Prescriptions Physicians are Writing. Mr. William A. Hall, Pres. Michigan Pharmaceutical Society.

Discussion: Dr. W. R. Chittick; Dr. W. D. Ford.

Report of a case of Acute Lymphatic Leukemia with demonstration of the Blood Spread. Dr. L. J. Lennox.

Monday, September 18.

Report of Delegates to the Petoskey Meeting of the Michigan State Medical Society. Dr. C. W. Hitchcock.

Echoes from the Portland Meeting of the American Medical Association. Dr. F. W. Robbins.

Address of the Retiring President—Dr. Guy L. Kiefer.

Installation of officers for the Coming Year.

The retiring President invites the members to a buffet luncheon at the close of the meeting.

Monday, September 25.

Presentation of Fracture cases with demonstration of some special splints. Dr. G. E. Fay.

Presentation of Cases and Pathological Specimens. Dr. H. O. Walker..

Annual Meeting.

At the next meeting of the Mississippi Valley Medical Association, to be held at Indianapolis, Ind., October 10, 11, 12, the annual addresses will be delivered by Dr. Arthur R. Edwards, of Chicago, and Dr. W. D. Haggard, of Nashville, Tenn.

Dr. Edwards has chosen for the subject of his address, "Certain Phases of Uremia, Their Diagnosis and Treatment," and Dr. Haggard will discuss in his address, "The Present Status of Surgery of the Stomach." In addition to these addresses there will be the annual address of the President, Dr. Bransford Lewis, of St. Louis.

A cordial invitation is extended to every physician in the valley to attend this meeting for which a large number of interesting and valuable papers have been promised. Dr. J. H. Carstens, of Detroit, is Second Vice-President of this association.

Fourth Annual Meeting Association of Military Surgeons.

Preliminary Program.

Tuesday, September 26, (Cadillac Hotel.)

10:30 A. M.

Reports on the work of the Association, during the year, 1904-1905, by the officers and committees.

The Training of the Medical Officer of the State Forces to best qualify him for Local Service and for Mobilization with National Troops. By the Winner of the Enno Sander Medal for 1905.

The Prevention of Disease in the Army and the Best Method of Accomplishing that Result. By the Winner of the Seaman Prize for 1905.

2:00 P. M.

Routine Instruction to the Hospital Corps of the National Guard. By Maj. William G. Bissell, Surgeon N. G. N. Y.

A Suggestion for the Greater Efficiency of the National Militia. By Capt. Charles S. Butler, M. V. M.

The Plan Proposed for a Brigade Hospital on a Tour of Field Service and the Realization Attained. By Lieut. Col. Eugene A. Smith. N. G. N. Y.

Discussion on the Use of Stretchers on Board War Ships. By Surg.-Gen. S. Suzuki, I. J. N.

A Few Minor Details to be Observed on Board Ship Preparatory to Going into Action. By Surg. Joseph C. Thompson, U. S. N.

A Plea for the Unification of the Duties of Medical Officers of the Army and Navy. By Surg. Charles F. Stokes, U. S. N.

The Service of Negroes in Hospital Corps Detachments. By Capt. J. H. Ford, U. S. A.

Mexican Transport Model for Carrying Wounded in Mountainous Countries. By Lieut. Col. Alejandro Ross, Mexican Army.

8:00 P. M.—Public Meeting.

Overture, band.
Invocation.
Selection, band.
The State of Michigan. By Hon. Fred M. Warner, Governor of Michigan.
Selection, band.
The City of the Straits. By Hon. George P. Codd, Mayor of Detroit.
Selection, band.
Michigan in War. By Hon. Russell A. Alger, U. S. Senator from Michigan.
Selection, band.
Detroit as a Host. By Hon. William C. Maybury, formerly Mayor of Detroit.
Selection, band.
The Annual Address of the President. By Surg.-Gen. Walter Wyman, Public Health and Marine Hospital Service of the United States.
March, band.

Wednesday, September 27.

10:30 A. M.

A New Type of First-Aid Dressing. By Surg. Charles F. Stokes, U. S. N.

A Series of First Aid Packets. By Maj. George H. Halberstadt, Brig. Surg., N. G. Pa.

An Emergency Case for Field Work. By Lieut. Col. Leonard B. Almy, C. N. G.

A New Hypodermic Syringe. By Lieut. Wm. W. Reno, U. S. A.

Experiences During the Russo-Japanese War. By Surg.-Gen. S. Suzuki, I. J. N.

The Application of Laboratory Methods on Board Ship. By P. A. Surg. Alfred W. Balch, U. S. N.

The Initial Examination of the Recruit. By Hugh Hamilton, M. D., Medical Examiner of Recruits, U. S. A.

Military Medical Heroism. By Maj. James Evelyn Pilcher, U. S. V., Captain U S. A.

Presentation of Insignia to Foreign Delegates.

2:00 P. M.

Alcohol a Depreciating Factor of Efficiency. By Surg. George A. Lung, U. S. N.

Practical Methods for Purification of Drinking Water. By Brig.-Gen. William H. Devine, M. V. M.

A Virulent Outbreak of Tuberculosis in a Gurkha Regiment. By Col. H. Hamilton, C. B., Indian Medical Service.

Note on Dermatobia Noxialis. By P. A. Surg. Allan Stuart, U. S. N.

The Anatomical Characters of Opisthorchis Sinensis and the Statistics of its Occurrence in the United States. By P. A. Surgeon M. J. White, P. H. & M. H. S.

Malaria and Mosquitoes at Lucena Barracks. By Capt. Henry Page, U. S. A.

Thursday, September 28.

10:30 A. M.

Effects of Climatic Extremes on the Health of Battle Ship Personnel. By Surg. Corben J. Decker, U. S. N.

Medical and Surgical Observations During a Three Years' Tour of Duty in the Philippines. By Maj. John M. Banister, U. S. A.

Difficulties in the Diagnosis of Yellow Fever as Seen on the Isthmus. By Holcomb C. Curl, U. S. N., Supt. of the Colon Hospital.

Beri-Beri or Alcoholic Neuritis. By P. A. Surg. J. S. Taylor, U. S. N.

Beri-Beri and Dhobie Itch. By Dr. Julius M. Purnell, U. S. A.

Beri-Beri at the St. Louis World's Fair. By Captain Llewellyn P. Williamson, U. S. A.

Liver Abscess at Guam, S. I. By Surgeon James F. Leys, U. S. N.

"A Sure Cure for Asthma." By Dr. Alfred T. Short, U. S. A.

Otitis Media and Mastoidits as a Sequel of Influenza. By Lieut. Charles D. Center, I. N. G.

2:00 P. M.

Traumatic Neurasthenia. By Capt. Vertner Kenerson, Asst. Surg., N. G. N. Y.

Inguinal Adenitis. By Surg. George Rothganger, U. S. N.

Gunshot Wound of the Abdomen. By Asst. Surg. Tully Vaughan, P. H. & M. H. S.

A Case of Peritoneal Wound. By Capt. William H. Wilson, U. S. A.

The Treatment of Gonorrhoea by Irrigation. By Dr. William Grey Miller, U. S. A.

Gonorrhoea and its Treatment from the Standpoint of a Military Surgeon, with Especial Reference to the Sequelae. By Lieut. Robert M. Thornburgh, U. S. A.

Hearing Affections and Military Service. By Emil Amberg, M. D.

The Influence of Nasal Respiration; the Need of Nasal Respiration for the Greatest Efficiency of the Individual. By Maj. Wm. Sohier Bryant, U. S. V.

Results of Examination of Recruits for the National Guard. By Maj. Charles Adams, I. N. G.

A Proposed Regimental Medical Supply Table for the National Guard. By Capt. Samuel Cecil Stanton, I. N. G.

Papers, the titles of which have not been received by the Literary Committee, by Surg. H. W. Austin, P. H. & M. H. S.; Gen. Nelson H. Henry, N.. N. Y.; Col. William C. Gorgas, U. S. A.; Lieut. M. A. DeLaney, U. S. A., and Capt. Henry du R. Phelan, U. S. V.

PROGRESS OF MEDICAL SCIENCE

The Relation of Gonorrhoeal Rheumatism to Seminal Vesiculitis, and Its Cure by Seminal Vesiculotomy.

Fuller (Ann. of Surg., June, 1905, XLI., p. 903), regards gonorrhoeal rheumatism as articular metastases in a systemic infection that is continually renewed from a genitourinary nidus, usually from seminal vesiculitis. The gonococcus, the author is inclined to believe, is simply introductory to a mixed infection.

In support of this belief, the author found, in 12 out of 15 cases of gonorrhoeal rheumatism in the male, seminal vesiculitis as the only existing genito-urinary lesion; in one, pronounced vesiculitis and subsiding urethritis; in the remaining two, vesiculitis present, but urethritis that seemed to be the chief feature. In the four cases, in which the seminal vesicles were incised and drained by the author's perineal method (Jour. Am. Med. Ass'n, May 4, 1901; N. Y. Med. Rec., May 21, 1904; Post-Graduate, Oct., 1904), pain, even on motion, in the previously very sensitive joints was entirely relieved in from twenty-four to forty-eight hours, and, although two of the cases had been bedridden for four months, all four cases at the end of two weeks, the period of rest required by the operation, were able to walk about and leave the hospital "entirely free from their gonorrheal rheumatism."—WILLIAM E. BLODGETT.

The Epidemic of Pfeiffer's Glandular Fever.

Chicago physicians have had scores of cases of a peculiar glandular fever in children which resembled a streptococcus sore throat, but was accompanied by sudden and marked swelling of the cervical glands, signs and symptoms of a general sepsis, swelling of the spleen and liver, and in severe cases by acute nephritis. Influenza bacilli are found on the tonsils, as well as pus cocci. Heliodor Schiller, Chicago, reports cases in The Journal A. M. A., August 5, in detail and discusses the diagnosis. Diphtheria and tuberculosis were easily excluded. No case was fatal, in spite of the serious character of disease and complications in some of the cases. Schiller says that physicians with hospital privileges ought to be able to make careful study of the disease and to report interestingly.

Exomphalos.

I. F. Hicks, Dunn, N. C., (Journal A. M. A., August 5), reports a case of umbilical hernia in a new-born infant. On the eighteenth day, the child was operated on for strangulation at the umbilical ring, with invagination and adhesions. Six or eight inches of the ileum were resected and the ends of the divided intestine brought together and united by Lembert sutures. The mesentery was stitched where a V-shaped portion had been removed, the intestines were replaced and the operation completed by stitching the peritoneum and closing the abdominal wound. The bowels were kept locked by opiates for six days, when the infant had a natural evacuation and since then an uneventful recovery. The case is reported because, as he says, of its rarity and generally fatal outcome. The success in this case is encouragement for operation in other similar ones.

Breslau and Its Surgical Clinic.

No foreigner ever visits Breslau for pleasure—he either goes in the way of business, or is attracted by the advantages, either by its universities or hospitals, which are counted the best in Germany. Breslau is the capital of Silesia, and the second largest city in Germany, having a population of 423,000 inhabitants. It has been a place of importance since the year 1,000, and of recent years has taken on a new life and growth by reason of the many manufacturing enterprises which have recently been inaugurated, and which have produced wealth and prosperity to its people. In the old town one is impressed with the advances of the new jostling with the old. Here and there are quaint old buildings many-gabled and roofed in tile, upon which time has bestowed dark, rich color tones in brown and red, giving the air of dignity and responsibility to the structure. Close to the side of these oldest inhabitants are towering buildings of brick and steel, which have

the air of some rich parvenue who is endeavoring to elbow his more respectable neighbor out of existence and to secure his much-coveted place. Like all German cities Breslau has its quota of public gardens where people gather to drink beer and meet their friends, but, unlike those of the South and West, they are deserted during the day, as the people have learned to resist those temptations so dear to every German's heart, and find little time for such attractions during working hours. Even the university students are a quiet, orderly set, little given to the pranks and the harmless dissipations of the average college man. The university was formerly located at Frankfort-on-the-Oder, but was moved to Breslau in 1811 and united with a college at that place, which was under the control of the Jesuits. At the present time the university has 1,700 students, but only a comparatively small number of these belong to the medical school. The present high standard of the medical department is due to the united effort of Professors Von Strumpell and Von Mikulic, the former having under his direction the department of internal medicine, and the latter, general surgery.

* * * * *

Prof. Mikulicz is a small, active man of about fifty-eight years. He is of nervous temperature, and speaks quickly and incisively, and wastes but few words. He is an enthusiastic and indefatigable worker himself, and expects the same from his assistants. His rule in surgical operations is that every assistant must be held responsible for his own act. A natural aptitude, together with a large experience extending over many year, has given him a manual dexterity which is seldom equaled, and early scientific training, with constant experimental research, has developed a judgment which is seldom at fualt in its deductions. * * * In the Breslau clinic aluminum bronze wire is extensively used for sutures. Silk and catgut is employed for buried sutures, and the former exclusively for operations on the intestines. Silkworm gut is rarely used. In bone operations, the ordinary carpenter's chisels and gouges with hardwood handles are used. In excision of knee joint, the joint is entered by an anterior curved incision, and the lower portion of the tibia; fixation splints. In resection of the intestines he prefers the silk sutures with a continuous stitch, and a secondary reinforcing Lambert suture to the outer side. Occassionally the Murphy button is employed, but it is not a favorite. When used the edges of the intestine are held close to the shank of the button by a interrupted suture on either side, instead of the usual purse-string suture. In gastro-enterostomy his own method is usually followed, in which the jejunum is brought forward and attached to the anterior wall of the stomach in an oblique position of forty-five degrees, the anastomosis being effected by the usual continuous sutures forming an internal and an external ring. All bleeding vessels are tied with fine catgut, and no clamps are used, the escape of intestinal and gastric contents being prevented by the assistants.

* * * * *

Certain diseases, such as aneurism, empyema, dilatation of the heart, and stenosis of the trachea, contraindicate the employment of esophagoscopy. Intimately connected with the perfection of methods of examination of the esophagus are the experiments with the pneumatic cabinet, which are carried on by one of the assistants. Dr. Sauerbrud. under the direction of Prof. Mikulicz. The conditions sought in the construction of the cabinet are as follows: To maintain a constant diminished atmospheric pressure equivalent to that of an altitude of 900 feet, and at the same time to preserve a normal supply of oxygen in the contained air. The "Kammer," as it is called, is a small chamber about 9x10x7 feet, constructed with a steel frame, into which are set heavy plate glass: strips of rubber are placed between glass and frame to render the joint air tight. Upon one side is a door, which is constructed upon the same principle. The ceiling is pierced by an inch pipe of iron, which is connected with an exhaust pump run by an electric motor. In another portion of the chamber is a cylindrical reservoir filled to a certain point with water. From the bottom of this extends a two-inch pipe, which passes through an aperture in the ceiling and communicates with the outside air. Another short pipe of the same diameter is set in the top of the reservoir, but the inner extremity does not come in contact with the column of water. The resistance of the column of water is regulated so that it is equivalent to the required atmospheric pressure, so that when the desired internal pressure is reached the atmospheric air rushes through the long pipe, escapes at the submerged end, and, passing through the column of water, escapes in to the chamber. In this manner there is supplied to the compartment a constant supply of fresh air, and the diminished atmospheric pressure of the chamber remains constant. To indicate this

pressure an aneroid barometer is placed on the wall. On one side of the room is placed an operating table of light construction, the head of this table being placed against the wall. Here the glass is pierced by a hole large enough for the human head to pass, to the rim of which is attached a rubber collar. In an operation on the thorax, the patient is placed upon the table with the head projecting through the aperture; the motor is set in motion and the internal air rapidly falls to the desired pressure. In the meantime the anaesthesia is administered to the patient from the outside, and, after narcosis is obtained, the thorax is opened and a search made for the organ upon which it is desired to operate. In the case of the lung, one or more ribs are not resected, but an intercostal spac is separated by a pair of powerful retractors. If, however, the operation is to be on the esophagus, it will be necessary to resect two or more of the ribs. During thse operations upon the thoracic viscera, the lung does not collapse, and respiration is normally performed. This cabinet of Dr. Sauerbruch is still in the experimental stage, twelve operations having being performed, all save one having been successful. In the one failure death was caused by the anesthetic. Portions of the lung have been excised, the esophagus resected, the pericardium opened, and in animals experiments have demonstrated the repidity of absorption in the pericardial and pleural cavities. From the results obtained up to the present time, it certainly seems that the cabinet of Dr. Sauerbruch promises to open up a new field in surgery of the thorax and render certain cases successfully operable which have hitherto been without hope of relief. Much, however, remains to be done. The function of respiration, although apparently normally performed, is not strictly under the same condition as in the outside air. Again it remains to be seen whether an increased pressure within the respiratory tract will not be an improvement upon the negative pressure of the cabinet. This is one of the important questions to be ascertained, and it is believed that the danger from an anesthetic under these conditions is very great. * * * (Med. and Surg. Monitor.)

The Treatment of Acute Nephritis in Childhood.

Dr. John L. Morse in International Clinics (vol. 11, Fifteenth series), writes an extremely interesting article on this subject. The treatment of every diseased organ whose continued action is necessary for the life of the individual may be divided outside of directly curative methods, into two parts; The first comprises those measures which diminish the work which the organ has to do; the second, those which help the organ to do its work. We can do but little to help acutely inflamed kidneys do their work. so we must devote our attention largely to diminishing the work which they have to do.

It is important to know what substances are excreted by the kidney with the most difficulty and to know in what foods they occur in order to avoid their ingestion as much as possible. One must also be conversant with the caloric needs of children at various ages so that an excess of diet shall be avoided while we are avoiding the weakening of starvation.

He shows that to order a patient on a milk-diet is not a wise plan; that ordinary cow's milk given in large enough quantities to produce the requisite colories will give an excess of proteid and of water. This is avoided by the use of cream mixtures and by careful feeding of a few other articles.

While it is difficult to abstract an article so pregnant with interest and value, the author's own clinical divisions and conclusions may be appended.

"Cases of acute nephritis, a s they are seen clinically, may be divided into three classes: (1) Those in which the secretion of urine is very small, the edema marked or increasing, and uremia present or impending; (2) those in which the amount of urine is reduced, but not excessively so, the edema slight or moderate and not increasing, and in which there are no symptoms of uremia; and (3) those in the convalescent stage.

Class i.—In the first class of cases the kidneys are congested and engorged with blood, the glomeruli and tubules blocked, and the epithelium degenerated. They are able to excrete but little, and are practically impervious to water. They should be spared as much as possible by regulation of the food and limitation of the water. No more proteid should be given than is necessary to meet the minimum proteid need. It may be asked why it is not better to stop all proteids and thus spare the kidneys entirely. The answer is that during the first few days of starvation the excretion of nitrogen is but little diminished, and that on this account little or nothing can be gained by entirely cutting off the proteids. The proteids are best given in the form of milk and cream mixtures, which also meet

a considerable proportion of the normal caloric needs. These mixtures also furnish a considerable proportion of the normal supply of water. In most cases it is inadvisable to give more water; if more is given, the normal supply should never be exceeded. Diuretics should not be given, as they are contraindicated. The bowels should be freely opened to aid in the elimination and to prevent in the absorption of poisonous substances. Free sweating should be induced, preferably by the hot pack, to reduce the edema. Hot poultices should be applied to the loins and stimulation given, if necessary.

Such a strict limitation of the food and water is usually not very well borne for more than four or five days or at most a week. The amount of food and water must, of course, be varied inaccordance with the age of the child. A child of eight years, for example, has a normal caloric need of 1325 calories. It needs 60 grams of albumin and takes about 1250 c.c. of water. According to von Noorden its minimum proteid need is 36 grams. 675 c.c. of milk and 225 c.c. of cream (22½ oz. and 7½ oz.) will supply this minimum proteid need and also supply 900 calories, or more than two-thirds of the normal requirement. This amount of milk and cream should therefore be given. It also furnishes about 750 c. c. of water, or three-fifths the normal amount. In most cases no more water is needed or advisable. If more is given it should not exceed 500 c. c. which is enough to bring the water up to the normal amount.

Class ii.—In the second class of cases the congestion of the kidneys and the blocking of the glomeruli and tubules is less. The kidneys are able to do a certain amount of work and are more or less pervious to water. The work which they have to do should still be kept as low as is possible consistent with the maintenance of a proper state of nutrition. The caloric needs should be met in full. The amount of proteid should not exceed the normal proteid need, although it is always necessary to limit it to the minimum proteid need. The proteid is best given in the form of milk and cream mixtures. The further caloric needs should be met with foods rich in fat and carbohydrates but low in proteids.

It is usually advisable to give at least enough water to meet the normal need. This should not be exceeded, if there is edema. If there is no edema, the supply of water should be regulatd by the amount of urine. If the amount of urine is below normal when the normal amount of water is being taken, the water should be diminished, as it shows that the kidneys are not in a condition to allow water to pass freely. If the amount of urine is normal or above normal when the normal amount of water is being taken, more water is being taken, more water should be given.

Diuretics are not contraindicated, but are usually not necessary. There should be one or two large, rather loose movements of the bowels daily. Hot packs should be continued, if there is edema; otherwise they are not only unnecessary but harmful.

In this stage, for example, a child of eight years would take the same amount of milk and cream as in the very acute stage, or perhaps a little more. The additional 425 calories would be given, perhaps in the form of bread and butter or oatmeal and sugar. Thus three slices of bread and one ounce of butter will provide 450 calories, or four tablespoonfuls of oatmeal with two teaspoonfuls of sugar and two slices of bread with one-half ounce of butter, 400 calories. c.c. 500 of water will bring the water up to more than the normal amount. If more is given, it should be in measured amounts, regulated to meet the indications.

Class iii.—In the convalescent stage there is little or no congestion of the kidneys and but little blocking of the glomeruli and tubules, while the epithelium is gradually returning to its normal condition. The kidneys are at least as pervious to water as under normal conditions. They should be spared, however, until all symptoms have ceased and some time longer. The principles of diet are the same as in the earlier stages. The proteid needs are best supplied by the milk and cream mixtures. If meats are given, the milk should be correspondingly cut down. The further caloric needs are met by fatty or carbohydrate foods. Vegetables and certain fruits are allowable.

Water should be forced. Diuretics, diaphoretics, and cathartics are unnecessary, but lavatives should be used. The child should be protected from exposure to cold, and, if circumstances permit, sent to a warm climate. Undue exertion must be avoided. The diet, care, and hygiene must be watched, and the urine examined at frequent intervals for months after the disappearance of symptoms.

NEW INSTRUMENTS AND DEVICES

Mention of new instruments and devices in this department is entirely complimentary and articles illustrated are judged on their merits.

We invite manufacturers and physicians to send us matter suitable for publication under this head. A description of the device and an electrotype or half-tone with a base not greater than two and five-eighths inches should be sent.

Always mention the price of the article in question.

The management cannot undertake to return cuts unless postage for same accompany the letter with which they are sent.

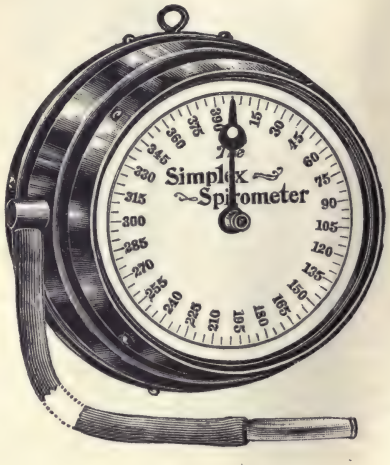
To Our Readers—The Detroit Medical Journal publishes descriptions of such aids to the profession as it knows to be reliable and trustworthy. We shall be pleased to furnish information as to the articles mentioned, or the articles themselves, upon receipt of an inquiry.

The Acme Triturator.

This ingenious mechanical device seems able to relieve the pharmacist of much drudgery. Both pestle and mortar revolve and various motions and speeds can be obtained. The machine will do the work of several persons in mixing and pulverizing, needs but little watching and can be used with any suitable power. Three sizes are made at $40, $60 and $100.

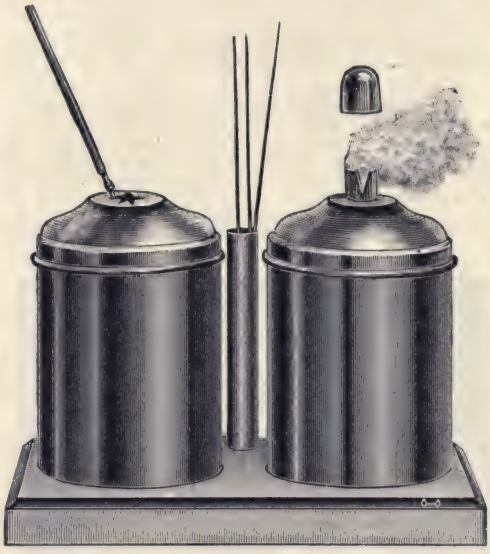
NEW SPIROMETER.

This instrument brings the little used Spirometer within the reach of every physician. It is useful in many ways in diseases of the lungs. In respiratory exercises after pleurisy or empyema it is much superior to the old "bottle" plan, as it registers the increase in lung capacity from day to day. It is also useful in physical examinations of all sorts, especially in insurance work. Price, $5.00.



Improved Cotton Reservoir and Waste Box.

The object of this neat outfit is to prevent dust and all septic matter from coming in contact with the cotton. When in use a very small portion of the cotton is exposed. The waste box contains a glass which is easily removed and the cover has a star shaped perforation which greatly assists in removing the cotton from the applicator. It also has a tube for holding the applicator which greatly adds to usefulness. The whole is nicely nickel-plated and makes a most complete outfit. Price, $3.00.



New Male Urinal.

This instrument is simply a modern improvement on an old idea. The urinal is made to lie close to the body, is unobtrusive, comfortable and effective. The special top construction insures free inlet and prevents return flow. There is extra large capacity coupled with a convenient shape.

BOOK REVIEWS

A Manual and Atlas of Orthopedic Surgery. By James K. Young, M. D., Professor of Orthopedic Surgery, Philadelphia Polyclinic, etc. Profusely illustrated. Quarto, pp. about 900. Price (subscription), cloth, $10.00; half-morocco, $12.00. Philadelphia. P. Blakiston's Son & Co. 1905. (In preparation.)

Advance sheets of this forthcoming book set a very high standard of excellence in press-work, and organized inclusiveness. Beauty in illustrating is noteworthy. A work of art, as well as science, apparently it is to occupy an enviable place without a rival.—W. E. B.

"Surgery, Gynecology, and Obstetrics."

A new monthly journal has appeared with the above title, published in Chicago, whose profession is liberally represented among the collaborators, together with dignified names from many other cities of the country. In this first number are 112 pages of reading matter, including ten original articles by well-known men. The proceedings of the American Gynecological Association are chronicled, while abstracts of current literature and book reviews are to be a formal part of each issue.

There seems to be little excuse for the introduction of a journal embracing these three subjects, when each is separately exploited in special publications; but if subsequent years maintain the standard of the initial number, the journal will attain a high place among medical periodicals, creating its own position by force of merit. Not only is there excellent subject matter, but the details of cover, paper, type, and illustrations are of exceptionally high grade.

International Clinics. Vol. II. Fifteenth Series. Edited by A. O. J. Kelly, A. M., M. D., Philadelphia, with a corps of collaborators and assistants. J. B. Lippincott Co., Philadelphia. 1905.

In another column we review the article on "The Treatment of Acute Nephritis in Childhood," by Dr. John L. Morse, of Boston, which is the first offering in this new volume. No diminution of interest but rather increasing value is noted in this excellent quarterly. Perhaps we can give our readers no better idea of the contents of the colume than by quoting a few of the subjects treated, as follows:

Treatment of Pulmonary Hemorrhage by adrenalin.
X-Ray Treatment of Tinea Tonsurans.
Galloping Typhoid.
Hernias of Children.
Injuries of Prostate.
Intracapsular Fractures.
Scopolamin as a general Anaesthetic in Surgery.
Rational Therapy of Uterine Displacements.
Clinical Significance of Exopthalmos.

The National Standard Dispensatory. By Hare, Caspari and Rusby. Lea Brothers and Co., Philadelphia. 1905.

Will be ready for sale September 1st, the date when the new U. S. Pharmacopoea goes into effect. By authority of the Convention it will contain every article in the new U. S. P., as well as the explanations and instructions necessary to understand and apply the brief statements to which the official guide is restricted.

The National Standard Dispensatory is a new work, a distinct improvement upon anything of the kind hitherto published. Its authors, Dr. H. A. Hare, of Philadelphia, Prof. Charles Caspari, Jr., of Baltimore, and Prof. H. H. Rusby, of New York, are all men of the highest eminence in their respective fields, and are all members of the Revision Committee of the U. S. P. They have carefully matured its plan so as to render the maximum service to both professions it interests, namely, Pharmacy and Medicine. It not only covers the new U. S. P. as aforesaid (and the chief foreign pharmacopoeias as well), but the scarcely less important domain of the unofficial drugs and preparations so largely used. It offers full information regarding the pharmacognosy, the pharmacy, and the medical action and uses of

all substances used in Pharmacy and Medicine at the present day. Pharmaceutical methods and products are covered, with descriptions of the most approved apparatus.

The Appendix contains useful tables, formulas, etc., for practical work.

Modern Clinical Medicine. Infectious Diseases. An authorized translation of "Die Deutsche Klinik" under the general supervision of Julius L. Salinger, M. D. Philadelphia. Edited by J. C. Wilson, A. M., M. D., Professor of Medicine in the Jefferson Medical College, Philadelphia. Illustrated. 925 pages, 6x10. D. Appleton & Co., New York.

This volume begins the publication of an English translation of "Die Deutsche Klinik," one of the most important systematic German treaties on Internal Medicine. To those physicians who for various reasons do not indulge in European medical books, the publication of this series will be a valuable aid. As a system the "Klinik" undoubtedly holds a foremost place, and as a reference work additional to American texts, it may be of great assistance. The arrangement of material has been altered from that of the original work and promises to be a more convenient one.

The first volume contains chapters on thirty-seven infectious diseases, seven of which are written by the American editor and translator. While scarcely exhaustive the articles are of sufficient length to enable the authors to cover completely all ssential points in a discussion, so one will find here the latest German work on etiology and treatment. This point of view is always stimulating even if we are not always able to follow them to their conclusions. Many names are found in this first volume already familiar to American medical readers, as Baginsky, Hoppe-Seyler, Heubner, Eichhorst, Loffler, and Klemperer,—each of whom contributes a chapter.

With all its many virtues the volume still has some of the German failings. The chapter on small-pox, by Bäumler of Freiburg, begins as follows: "There has been no opportunity of observing variola in any form in this clinic for nine years." Such a statement would hardly seem to qualify a man to write on the subject for such a system, and the perusal of the article bears out one's fear. The editor supplies all the references to the work of Ewing, Councilman and McGrath on the supposed parasite of small-pox. In the very excellent article on Typhoid fever, also, the editor supplies the only referenc to the transmission of that disease by flies, as demonstrated amply by Vaughan. Among the best chapters is one by Ortner, of Vienna, on Influenza; many other chapters might be mentioned as very satisfactory and of great value.

The translation is on the whole, unusually good. The occasional ambiguous sentence which is so hard to avoid in translating, has crept in; but much of it is vigorous and idiomatic English. If other volumes maintain the standard of this one, the series will be easily one of the most important works on internal medicine ever issued in this country.

RECEIVED:

(Grateful acknowledgement of the receipt of the following is hereby made. Further notice in our review column may be given).

Conservatism in Pelvic Surgery. The early diagnosis of Cancer of the Fundus, with report of cases. By Hunter Robb, M. D. **The Streptococcus in Gynecological Surgery.** By Hunter Robb, M. D., and W H. Smith, M. D., Cleveland, Ohio. Reprints.

Historical Sketch of the Radical Mastoid Operation. By Ray Connor, M. D., Detroit. Reprint.

Manual of Diseases of the Eye. By Charles H. May, 400 pages, 360 engravings and 60 colored figures. Fourth edition. Wm. Wood & Co., New York. Price $2.00.

The Clinical Value of Autopsies. By F. P. Anzinger, A. M., M. D., Springfield, Ohio. Reprint.

Green's Pathology. Tenth edition. A Text-book of Pathology and Pathological Anatomy. By T. Henry Green, M. D., F. R. C. P., Consulting Physician to Charing Cross Hospital, London. New (10th) edition. Thoroughly revised by W. Cecil Bosanquet, A. M., M. D., F. R. C. P., Assistant Physician to Charing Cross Hospital. 606 pages, 348 engravings and a colored plate. Cloth, $2.75, net. Lea Brothers & Co., Publishers, Philadelphia and New York. 1905.

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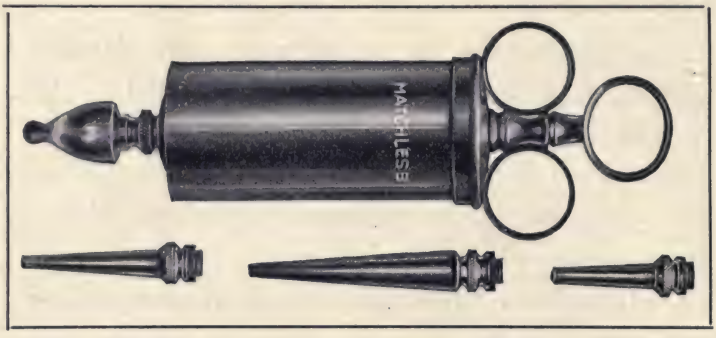

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Obstetrics.

By J. HAROLD LAIL, M. D., Ingalls, Ind.

The most important cases that I find necessary for the use of Glyco-Thymoline in are confinement cases where there is a tendency to septicemia, using well diluted with the ordinary fountain syringe. I generally direct the nurse to use one ounce of Glyco-Thymoline in one quart of water, injected well up to uterus each night and morning and I am always gratified to see inflammatory conditions pass away. In case there is any foreign substance left in the uterus I always inject the agent direct into uterus with uterine douche.

Relief in Neuralgia and Girdle Pains

The efficiency of antikamnia tablets in neuralgia is beyond dispute and is well illustrated by the following case: An old nurse who had suffered from severe neuralgia at intervals for many years and whose hair had become gray on one side of her head from this cause, expressed herself as having gained more relief from antikamnia tablets than from all of the many medicines which had been prescribed for her. For pain about the head from almost any cause, antikamnia tablets always have undoubted preference over all other coal-tr preparations. They are a useful adjuvant in the treatment of migraine, and the headaches of school children promptly yield to moderate doses.

In cases of organic spinal disease they proved of considerable value. A woman of 52, with transverse myelitis (complete paraplegia) found them reliable for controlling the very annoying girdle pain. Two or three doses of one tablet each, within twenty-four hours, were sufficient to make the pain endurable. In another case, where there was the girdle sensation connected with its earlier history, and numbness and paraesthesia of the lower extremities existed, one antikamnia tablet was given three times a day along with a regular potassium iodide treatment The observation of this case has extended over 18 months and at no time has the progress been so satisfactory as during the last six week, in which she ha taken antikamnia tablets regularly

Pneumonia Following Typhoid.

(From a Correspondent in Florida).

J. B. W.—White, male, aged 30 years, was recovering from a severe case of typhoid. On the 36th day his temperature was normal. On the 39th day it again began to rise and in a few days had reached 104.5, the pulse, 140. A severe cough and consolidation of the right lung told the story of a complicating pneumonia. After the long and severe drain upon his resources incident to the typhoid, his condition presented a very alarming, not to say, desperate situation.

Counsel was called and it was decided that his only hope lay in the generous use of Antiphlogistine. A "Large" package was secured and heated by placing the sealed can in hot water. The temperature of the room was brought up to about 80. A cotton-lined cheese-cloth jacket, open upon the shoulders and in front was prepared and warmed. Uncovering the patient's thorax, Antiphlogistine as hot as could be borne was spread upon the skin about ⅛ inch thick over as much of the thoracic walls as could be reached (back, front, side and over the shoulder). This was covered with the jacket. Turning the patient over, the other side was dressed in the same way. The jacket was then drawn together over the shoulders and down the front with stout thread. It is proper to say the entire contents of the 34½ ounce package (large) was used for the one dressing.

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The effect was surprisingly prompt. In a few hours, the temperature had declined to a point of safety and the pulse to 120. A similar dressing was applied fresh every 24 hours. The improvement was steady and marked and in six days the patient was again convalescent, thanks to Antiphlogistine.

The brilliant outcome in this case taught me the importance of careful attention to detail in the use of Antiphlogistine. Like everything else worth while, it must be properly used if the results are to be obtained.

Neurotic Conditions in Women.

Prof. Charles J. Vaughan, Chair of Gynaecology, Atlanta College of Physicians and Surgeons, writes: "Neuralgia constitutes the great cause of danger from the employment of hypnotics and narcotics, which only afford relief by numbing, but effect no cure. On the other hand, the formation of a drug habit rather aggravates the condition from which relief was originally sought. Neurasthenia, neuralgia and other manifestations, either of an active or passive character, are common and are always peculiarly rebellious to treatment. Cerebro-nervous affections peculiar to women associated with pathological disturbances of the reproductive organs are legion, and most trying to physician and patient. I have found nothing so well suited to these cases as Antikamnia Tablets, administered in doses of from one to three tablets and repeated every one, two or three hours according to the attendant's judgment. These tablets afford complete relief without fostering a drug habit and their exhibition is attended with no unpleasant after-effects. For the relief of painful menstruation there is no combination of remedies so generally successful as Antikamnia and Codeine Tablets. Their sedative, analgesic and anodyne properties especially commend them in the neuralgic and congestive forms of this distressing affection."

Antikamnia.

(Therapeutic Indications).

Antikamnia is an American product, and conspicuous on this account and because of the immense popularity which it has achieved, it is today in greater use than any other of the synthetically produced antipyretics. The literature is voluminous, and clinical reports from prominent medical men in all parts of this country, with society proceedings and editorial references, attest its value in actual practice in an endless variety of neuralgias, rheumatism, typhoid and other fevers, headaches, influenza and particularly in the pains due to irregularities of menstruation. Antikamnia has received more adverse criticism of a certain spiteful kind, particularly directed against its origin—and because of its success—than any other remedy known; critics have seemed personally aggrieved because of its American source, and that

it did not emanate from the usual "color works," but their diatribes have fallen flat as do most persecutions and unreasonable and petty prejudices. The fact stands incontrovertible that antikamnia has proved an excellent and reliable remedy, and when a physician is satisfied with the effects achieved he usually holds fast to the product. That is the secret and mainspring of the antikamnia success. It is antipyretic, analgesic, and anodyne and the dose is from 5 to 10 grains, in powder, tablets or in konseals taken with a swallow of water or wine. When prescribing Antikamnia, particularly in combination with other drugs, it is desirable to specify "in konseals," which are rice flour capsules, according an unequalled vehicle for administering drugs of all kinds.

Hip Fracture.

Dr W. W. Wentworth, Chicago, Ill., writes us the following: "With pleasure I desire to report to you the marked success in the use of the Ambulatory Pneumatic Splint for the treatment of several cases of fracture of the neck of the femur. In my experience, I have found no device for the treatment of fractures of the long bones which secured such good results, at the same time giving comparative comfort to the patient. I would call your attention to one case in particular, that of my mother-in-law, aged 84, who suffered a non-impacted fracture of the neck of the femur. With the application of the apparatus, she became very free from pain and finally made admirable recovery, having secured bony union with good use of the limb. I am warranted in saying that without the use of the splint and the attendant treatment, that it permitted, the conditions were such that the result would doubtless otherwise have been fatal. This device is decidedly a valuable addition to the modern treatment of fractures and I gladly recommend its use."

Glyco-Thymoline in Minor Surgery.

By JOHN T. HARRISON, M. D., N. Y. City.

In common with many of my brother practitioners, I was under the impression that Glyco-Thymoline, while a splendid detergent and antiseptic in mucous membrane affections, was too mild an antiseptic for use in a surgical way, an impression which I must confess, is far from being a correct one, as the following case, which I beg to submit to you, will prove:

Mr. Z., age 26, occupation, varnisher, came to me on the night of Dec. 31st., 1903, with a gunshot wound of the left hand. A hasty examination disclosed the fact that the ball had passed through causing a compound cominuted fracture of the second metacarpal bone, a portion of the head being involved.

I removed several pieces of bone and irrigated the wound with a solution of Peroxide of Hydrogen and applied the usual dressing of antiseptic gauze, cotton, etc. On removing dressing next day I found there had been a considerable discharge of pus and again irrigated with the peroxide solution and dressed as before. Removal of dressing on third day showing a continuance of pus. I determined to alter my line of treatment and as it was about this time that the value of Glyco-Thymoline in minor surgery had been called to my attention, I decided that this was a most excellent opportunity in which to test it. So, having removed dressing, Ithoroughly irrigated wound with a 25 per cent solution of Glyco-Thymoline and after applying dressing saturated it with the same solution.

When I saw the patient the next day I found the dressing moist and on removal there was scarcely any pus to be discerned. The same treatment was followed on the next and succeeding days until on the fourth day after beginning the use of Glyco-Thymoline, the wound was completely healed. Several days later there was indication of pus formation over the third metacarpal bone and upon cutting into it a small spicula of bone was found to be broken away and worked its way over. This was removed and pocket washed out with Glyco-Thymoline solution. Union speedily followed. Some two or three more pieces on as many occasions followed the same process, delaying complete recovery for seven weeks, at the end of which time, however, his hand was perfectly well and using it in his work.

Since then I have demonstrated the value of Glyco-Thymoline in minor surgery on several occasions to my own satisfaction and am convinced that surgery is almost as great a field for its use as is Gynecology or Nose and Throat work.

Brief Clinical Reports on Impovershed Blood.

Probably the most frequent and important conditions which the average physician is called upon to treat, are of an impoverished blood supply. Blood impoverishment is a condition rather than a disease and may be met with in all walks of life and at any age. It is symptomatic as many diseases, and cases are observed where it seems to be the chief clinical symptom, where no well defined organic disease can be observed, but where many indefinite complaints due to blood impoverishment are plainly in evidence. Whatever concomitant conditions exist with anemia and regardless of whatever special treatment may be demanded by plainly existing established organic trouble, it is, nevertheless, a fact, that the most complete and rapid cures are by restoring to the blood its normal elements. Consequently, the physician is justified in treating all cases of anemia with regard to the anemia itself, but, at the same time, not overlooking the care of the other pathological conditions which may exist.

A large hospital experience has given me ample opportunity to study these blood conditions and compare the action of the many therapeutic agents employed in the treatment of blood impoverishment. My efforts have been constantly directed toward finding the remedy which will have the most complete and rapid results in restoring the red blood corpuscles, thereby affording the surest and quickest relief, from the weakness and general debility which always accompanies blood impoverishment.

In the beginning of my experiments I noted that those therapeutic elements containing a food product and a stimulating vehicle have shown the most satisfactory and prompt results, while those purely of a drug basis seemed to have a limited usefullness. The conclusion reached by my experiments extending over several years, leads me to unhesitatingly endorse Bovinine as being the best tonic, stimulant and food.—Dr. John Griggs, Farmington, Conn.

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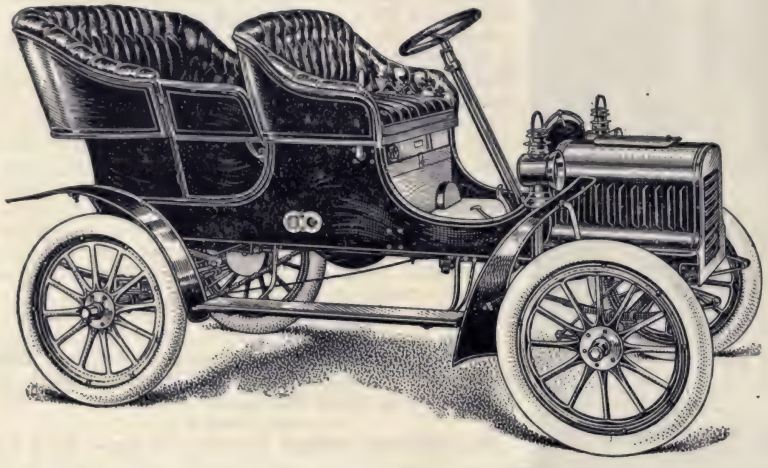

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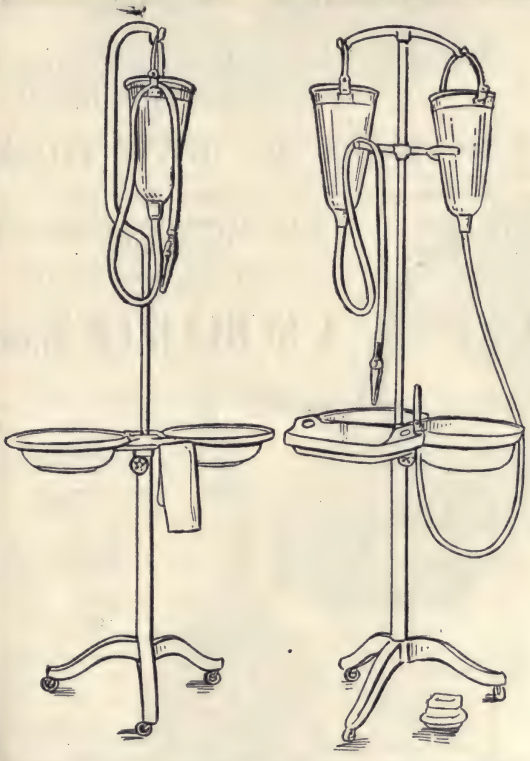

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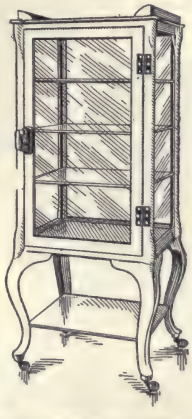

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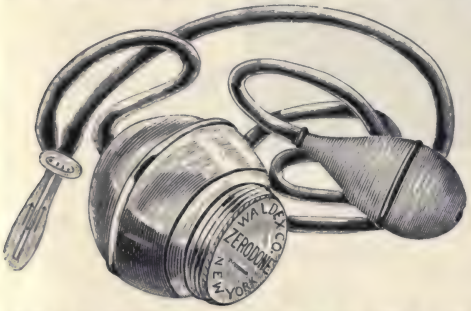

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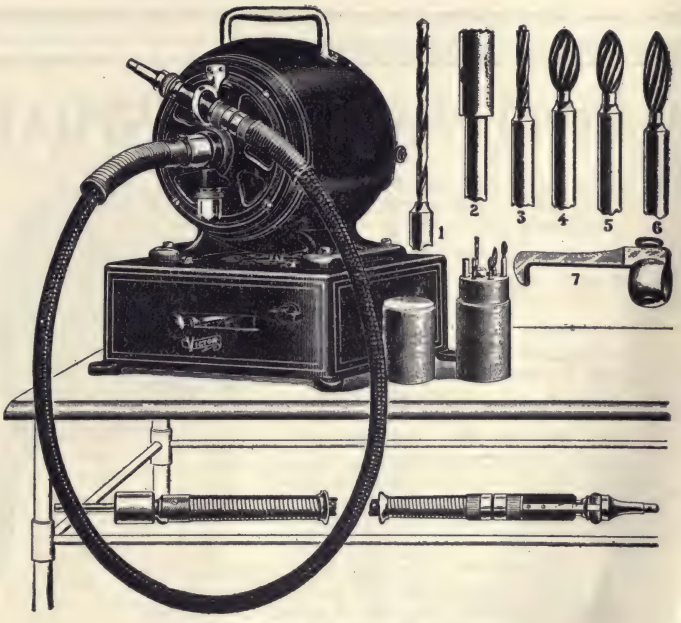

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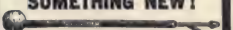

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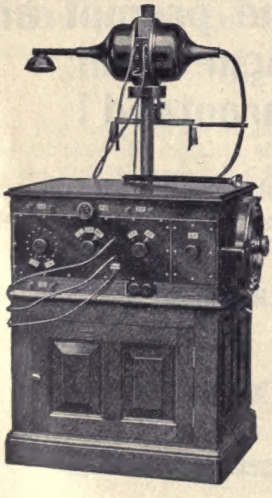

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